

## **APPENDIXES**

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## **APPENDIX 1**

### **Public Scoping Meeting Attendees, Introduced Issues, and Management Plan**

**Carmel Mountain and Del Mar Mesa Management Plan  
Public Scoping Meeting  
February 27, 2001**

Attendees

Susan Anuskiewicz, Parcel owner  
Holly Boessow, City of San Diego MSCP  
Slader Buck, U.S. Fish and Wildlife Service, Refuges Division  
Kathryn Burton, Sorrento Hills Community Planning Board and Friends of Carmel Mountain  
Chuck Corum, Pardee Homes  
Mark Doderer, RECON  
Beth Fischer, Pardee Homes  
Paul Fromer, RECON  
Marvin Gerst, Del Mar Mesa Planning Board  
Diana Gordon, Carmel Mountain Conservancy  
Keith Greer, City of San Diego MSCP  
David Hogan, Center for Biological Diversity  
Jan Hudson, Del Mar Mesa Planning Board  
Robert Hutsel, City of San Diego Mayor's Office  
Isabelle Kay, Carmel Mountain Conservancy  
Mike Kelly, Environmental Conservation Foundation  
Bill Lawrence, City of San Diego Park and Recreation  
Jeanette DeAngelis, City of San Diego Park and Recreation  
Todd Philips, City of San Diego Council District 1  
John Quirk, State Parks  
Allison Rolfe, San Diego Audubon Society  
Lisa Ross, Friends of Carmel Mountain  
Oliver Ryder, La Jolla Friends Meeting  
Thomas Steinke, SCMU/Pardee Homes  
Bobbie Stephenson, RECON  
Mark Webb, County of San Diego Park and Recreation  
Mike Wells, State Parks  
Susan Wynn, U.S. Fish and Wildlife Service, Ecological Services

## **Scoping meeting issues**

### **Multiple Jurisdiction Requirements**

- Plan should address what is prohibited by all the different jurisdictions. (Mark Webb)
- Land should be managed in accordance with the NWR requirements and the NWR designations for that unit. (Slader Buck)
- Management plan will ultimately be used by Refuges to satisfy their management plan requirements for these areas and the action items incorporated into the plan will need to be compatible with the federal system. (Slader Buck)
- Refuges is mandated to analysis the potential for hunting and fishing in all NWR areas, however, it is anticipated that resource protection will be an appropriate priority for this area and hunting/fishing will not be allowed. (Slader Buck)
- The Carmel Mountain vernal pools should be included within the NWR Vernal Pool Stewardship Project. (Isabelle Kay)
- In order to bring Carmel Mountain into the NWR, an act of Congress would be needed. However, the management plan can recommend that Carmel Mountain be managed like a NWR if appropriate. (Slader Buck)
- Cooperative agreement between agencies should be addressed in the management plan. If developed, cooperative agreements can help achieve consistency in management. (Slader Buck)

### **Restoration**

- Restoration potential of the management plan areas should be addressed. (Keith Greer)
- Plan should evaluate restoration potential (i.e. Dudleya) and the possibility of reintroduction of appropriate species (i.e. Orcutt's spineflower). (David Hogan)
- Management plan should address the potential for active mitigation/restoration projects. (Bill Lawrence)
- Management plan should prioritize corridors for revegetation and monitoring. (Bill Lawrence)

### **Enforcement**

- Management plan/working group should explore the possibility of improving City ordinances in order better enforce open space protection. For example, there is

no City ordinance requirement to stay on trails and there are no dog free areas in the City of San Diego. (Bill Lawrence)

- City ordinance requires that no bikes be allowed on single track trails, only designated park service roads. All applicable City ordinances should be referenced in the management plan. (Bill Lawrence)
- Enforcement section of the management plan should address limitations. For example, violations must be seen by the officer in order to enforce, there are a limited number of officers, and police cannot be called for “minor” crimes, only “major” crimes such as illegal ORV use. (Bill Lawrence)
- Encroachment issues should be addressed including adjacent developments dropping fences into the preserve. Can encroachment violations be enforced through the project tentative map?

#### Trails/Access

- Maintain trails and access for a variety of uses. (Keith Greer)
- GIS should be used to identify existing roads and trails. Redundant trails should be identified. (David Hogan)
- Plan should required that trails be clearly delineated. (David Hogan)
- Plan should address where trails will be and what users groups will be permitted on which trails. Mountain bike use must be address included which uses will be allowed on hard trails versus soft trails. (Marvin Gerst)
- Trails need to link to other off-site trail systems. (Marvin Gerst)
- Plan should address whether staging areas is needed, if one will be provided, and if one will not be provided, how undesirable parking and staging will be prevented. (Marvin Gerst)
- Critical linkages to the Trans County Trail should be maintained. (John Quirk, Mike Wells)
- Management plan should address the potential to provide a connecting trail to CVREP. Currently Carmel Mountain and CVREP are separated by a fence. (Isabelle Kay)
- Management plan should thoroughly address trails. No trails should be allowed in vernal pools. (Anne Harvey for Kathryn Burton)
- The park location should be discussed in the management plan. Management plan should discuss whether the park location is appropriate taking into account that it will be a main trail head for three communities. (Anne Harvey)
- Management plan should address the context of the trails as part of a system of trails that continue off-site. (Robert Hutsel)

- If trails are closed, management plan should recommend that a sign be posted stating the reason for closure. (Robert Hutsel)
- CVREP access is limited making access difficult for horse riders. In turn, the horse riders can cause damage by developing new trails to get around. Management plan should consider the potential for a connection to CVREP. (Lisa Ross/Marvin Gerst)
- Management plan should clearly identify access points in regard to adjacent development. (David Hogan)
- Management plan should identify standard widths of trails for each use. (Marvin Gerst)
- Management plan should address maintenance requirements that SDG&E has for their access easements. The management plan should also consider if these access easements can double as trails.
- Trail requirements for horse riders should be considered in the management plan. Paving cannot be used for horse trails because it can result in horseshoe damage and slippage. Decomposed granite or some sort of dirt surface is required for horses. Surface also needs to be able to hold up under the weight of the horses. The width standards that the City has developed for horse trails are not necessary. Trail does not need to be very wide, only needs good drainage. Single track trails can work for horse riders as long as there are no conflicting uses (i.e. bikes). Turnouts can be used to accommodate multiple uses on narrow trails. City requires that trails be safe and maintainable.
- Some feel that trail redundancy should be reduced. Others feel that trail redundancy can give a feeling of being in the open space “on your own”.
- Management plan should identify trails based on allowed usage (who goes where).
- The northeastern area of Carmel Mountain is being accessed by horses taking advantage of the recent burn area. Management should address the damage caused by the new horse trails created. (Diana Gordon)

#### Natural Resource Protection

- Protect endangered species. (Keith Greer)
- Open space areas should be managed like Torrey Pines, with an emphasis on resource protection and only accommodating access where appropriate. (David Hogan)
- Plan should address the responsibility of MSCP to facilitate recovery of covered species. (Oliver Ryder)

- Plan should address the requirements and needs of MSCP, including covered species management and monitoring. (Susan Wynn)
- Active management of the site will require a certain level of knowledge since this area is unique and has more endangered species per square foot than any other area. Therefore, the plan will need a basis for informed decision making. (Oliver Ryder)
- Management plan should address the biotic and non-biotic factors that effect the animal and plant populations on-site. (Oliver Ryder)
- Management plan should focus on the ecosystem and population viability. (Oliver Ryder)
- Management plan areas should be managed for the resources like Torrey Pines. (John Quirk, Mike Wells)
- Management plan should determine if we will have enough land to support the species within the management plan areas and recreational uses. Protection of the species should be the primary goal of the management plan. (Isabelle Kay)
- Management plan should include a feasibility study for bobcat monitoring. (Isabelle Kay)
- Sensitive species monitoring protocols should be included in the management plan. (Mike Kelly)
- Management plan's emphasis should be on natural resources. (Allison Rolfe)

#### Cultural Resources

- Management plan should emphasize the identification of natural and cultural resources within the management plan areas. (Bill Lawrence)
- Cultural resources should be identified and provisions for their protection should be included in the management plan. (Mike Kelly)
- Management plan should address historical preservation. For example, pickets from historic development on-site that should be preserved have been removed from the open space areas. (Diana Gordon)

#### Recreational Uses

- If preservation of ecosystem function is a goal of the plan, recreation must be compatible with that goal. (John Quirk, Mike Wells)
- Management plan should address controlled use while incorporating as many uses as possible. All activities should be considered. For example, the management plan should discuss how to incorporate mountain bikers but still control their use on the site. (Chuck Corum)

- Management plan should address the decline of horse riders in open space areas and the apparent increase of mountain bikers. Management plan should also address that mountain bikers typically like to ride on steep trails which can result in erosion and damage. (Jan Hudson)
- Potential commercial recreation uses should be planned for in the management plan. Examples include various running races, hiking groups such as Happy Trails, etc. Commercial recreation uses can also be considered a potential source of funding. (Robert Hutsel)
- Try to evaluate a wide variety of activities in the management plan even if they are not currently being pursued in the management plan areas. A position on whether each activity or activity type will be allowed should be clearly stated in the management plan (i.e. hang gliding). Management plan should also explore potential group activities (i.e. races) to determine if such uses will be allowed and if a permit will be required for those uses. If group activities are currently allowed to use the site without permits, the management plan should discuss a possible permit system for such activities. (Mike Kelly)
- When the voters approved the acquisition of Carmel Mountain, they were told that it would be a recreational area. Carmel Mountain is considered an important park area, especially for Carmel Valley. This should be considered when developing the management plan and considering which uses will be allowed on-site. (Lisa Ross)
- A oversight group on recreation use should be developed for Carmel Mountain and Del Mar Mesa. The oversight group would consider new proposed uses and determine if they can be accommodated within the open space areas.

#### Private Property

- Provide access for private properties using the least environmentally damaging alternative. (Keith Greer)
- Plan should allow private property to be folded into the plan if ultimately conserved. (Keith Greer)
- Management plan should address access for private property owners. Land swaps might also be an option. (Susan Anuskiewicz)
- Access easement to Schlacter should be vacated.

#### Format

- Incorporate City and other agencies management plan formats. (Keith Greer)

- Plan should not be vague. If there is not enough money to do all the sections in a detailed manner, those sections should be completed at a later date when funding is available. (David Hogan)
- Since there will be a lot of pressures from user groups, the management plan should have a clear statement of purpose and intent. For example, the intent of the plan could be to implement the MSCP or to protect the species within the management plan areas. If so, the management plan statement must be clear to this effect in order to defend against incompatible uses. (John Quirk, Mike Wells)
- Management plan should be designed so it can be actively used in the field. (Bill Lawrence)
- This management plan should provide more specific direction for management than other open space management plans that have been developed in the past (i.e. Penasquitos Preserve management plan). Plan specificity should be taken down to the species level. (Mike Kelly)

#### Funding

- Plan development should best utilize limited grant funds and plan should address limited management resources when discussing management plan implementation. (Keith Greer)
- Management plan should allow for funding through such sources as grants, fines, and settlements. (Bill Lawrence)
- Opportunities and funding will open up when management plan is in place so it is important to get it completed as soon as possible so implementation can begin. (Bill Lawrence)
- Additional funds may be available if all issues cannot be addressed adequately with the funding provided. This management plan should be a “gold plated” management plan. (Mike Kelly)
- The level of management needed to accomplish the goals of the management plan should be addressed. A financing plan should be included in the management plan and the management plan should identify what resources will be needed to accomplish management goals. (Mike Kelly)
- If resources are pooled, costs can be lower. Management plan should address pooling of resources and cost sharing methods when considering the cost and resources needed for management. (Slader Buck)

#### Fire Management

- Plan should incorporate a fire management plan, similar to Irvine (Mark Webb)

- Plan should incorporate a prescribed burn plan. (David Hogan)
- Management plan should address the use of controlled fire for resource management. (Isabelle Kay)
- Management plan should include a fire suppression plan which would instruct fire fighters on precautions to take when fighting fires in order to protect the resources (i.e. avoid vernal pools). (Mike Kelly)
- Prescriptive fire should also be addressed in the management plan, but should be carefully evaluated. Prescriptive fire is not always good. (Mike Kelly)

### Education

- Plan should include a public education component for the surrounding neighborhoods. (David Hogan)
- Management plan should consider developing education plans with adjacent schools (i.e. San Diego Jewish Academy). (Lisa Ross)
- Horse community is getting smaller and there are only a few horse ranches in the area. Management plan should explore an education program on environmental awareness for nearby horse ranches. (Lisa Ross)
- A education program with local schools for open space areas is already in place. It is called Site Stewardship. The management plan should discuss this program and it's potential use within the management plan areas.

### Interim planning

- Interim planning should be done to ensure that areas are properly protected during the plan development process. For example, there is a great potential for ORV use as surrounding developments come in and provide access to the site. (David Hogan)
- Management plan and interim measures should identify immediate threats to management plan areas. (Isabelle Kay)
- Action should be taken in the interim before the management plan is completed to protect the management plan open space area. For example, gates are unlocked on Del Mar Mesa. (Jan Hudson)
- Management plan and interim measures should address damage to short-leaved dudleya by horses, damage to vernal pools by adjacent development, and damage to open space by new horse trails. (Diana Gordon)

### Management Monitoring

- Use objective data to support health and persistence of the community. Monitoring data should provide robust figures that can be used to guide management. (Oliver Ryder)
- There should be quantitative management goals and a monitoring program should be established in order to determine if management goals are being achieved. (John Quirk, Mike Wells)
- Management plan should provide guidance for monitoring recreational use on-site. Open space use will increase over time and the management plan should provide guidance in order to adequately protect the open space areas.

### Adjacent Development/Edge Effects

- Management plan should analyze the high rate of development in recent years and its effect on the management plan areas. (Isabelle Kay)
- Management plan should address preserve edges. Recommended practices for adjacent developments include: controlling lighting, drainage, pet intrusion, etc. (Anne Harvey)
- Management plan should address threats that potential developments could have on wildlife and wildlife connections. (Isabelle Kay)
- The drainage from Torrey Surf and other developments should be discussed. (Anne Harvey)
- Projects will border the natural open space areas. Management plan should address measures to protect against edge effects. For example, fencing should protect from pet intrusion and, in some cases, the fences should be buried to prevent domestic animals from crawling under. (Allison Rolfe)
- Wrought iron fences allow for cat access to natural open space areas. Management plan should consider an improved barrier system to protect against edge effects. (David Hogan)

### Threats

- Damage to open space areas has occurred due to inadequate horse access (horse riders making their own trails or using eroded trails). Management plan should identify how to stop this damage. (Isabelle Kay)
- Management plan should identify exotic plant and animal species within management plan areas. (Isabelle Kay)
- Management area land should be properly used. Management plan should address trail usage, trash, migrant worker camps, etc. (Chuck Corum)

- Management plan should address control of illegal off-road vehicle use. (Robert Hutsel)

### Volunteers

- Management plan should encourage a high level of citizen involvement. The potential for volunteer patrols or park watch programs (residents who have a view of the park from their homes would call in violations) to be developed should be addressed in the plan. (Bill Lawrence)
- Management plan should discuss the potential for management of the open space areas by volunteer groups. (Robert Hutsel)
- Management plan should include positive language for management of open space areas by volunteers. (Mike Kelly)
- Current volunteer force is small and not effective. Management plan should discuss how volunteer force and other protection measure can be made more effective. (Diana Gordon)

### Design Issues

- Management plan should promote design which prevents a suburban/urban experience within the open space areas. Minimal signs, fences, chains, etc. should be used. (Lisa Ross)
- Management plan should address placement of interpretive signs from various environmental groups (i.e. San Diego Audubon). (Allison Rolfe)

### Miscellaneous

- The project consultants should not be afraid to make recommendations to the working group or in the plan. (Anne Harvey)
- A copy of the management plan developed by Carmel Mountain Conservancy should be given to the project consultants. (Isabelle Kay)
- City should look at incorporating Del Mar Mesa into Los Penasquitos Preserve. (Robert Hutsel)
- Other groups not represented at the scoping meeting should be included (i.e. trails coalition, bikes coalition). (Robert Hutsel)
- Pardee has established a conservation bank on Carmel Mountain which must be protected and allowed to function properly. (Beth Fischer)
- Acquisition targets should be identified in the management plan. (Allison Rolfe)

# Preserve Management Issues

## 1.0 Issues

A Public Scoping Meeting was held by the City of San Diego on February 27, 2001 to hear the issues of concern by agencies, jurisdictions, and public stakeholders. At the meeting, City staff described the intention of preparing a management plan for the Carmel Mountain and Del Mar Mesa Preserves and each person in attendance identified the issues they thought should be addressed in the plan.

A list of attendees and issues introduced was prepared by the City (Attachment 1). The Management Plan addresses these issues and others identified after the scoping meeting.

Issues introduced fall into these categories:

- Multiple jurisdictions having different requirements
- Habitat restoration
- Open space protection enforcement
- Trails and access
- Natural resource protection
- Cultural resource protection
- Allowable recreational uses
- Private property access
- Format of the plan
- Funding for implementing the plan
- Fire management
- Education program
- Interim planning
- Management monitoring
- Adjacent development and other edge effects
- Threats to the natural and cultural resources
- Volunteer involvement
- Park design
- Public use
- Urban encroachment
- Easements
- Erosion and sedimentation
- Brush management
- Miscellaneous

The issues introduced at the scoping meeting are described below.

## **1.1 Multiple Jurisdictions Having Different Requirements**

The properties within the Preserves are owned by many different public and private entities. For example, the USFWS National Wildlife Refuge system has management directives for their unit that falls within the Del Mar Mesa Preserve, and other entities have prohibitions against certain activities. The issue was raised that the management plan must take all these items into consideration to be ultimately useful to all property owners. Cooperative agreements between agencies should be addressed in the plan.

Utility easements across the preserves often require maintenance which need to be integrated with Preserve management tasks.

## **1.2 Habitat Restoration**

The restoration of the management plan area should be addressed, in particular, the plan should evaluate the restoration potential for small-leaved live-forever (*Dudleya blochmaniae* ssp. *brevifolia*) and the possibility of reintroduction of other appropriate species such as Orcutt's spineflower (*Chorizanthe orcuttiana*). Active mitigation and habitat restoration projects should be considered, and areas for habitat restoration and monitoring should be prioritized.

## **1.3 Open Space Protection Enforcement**

The issues of enforcing ordinances and Preserve rules, and enforcement limitations was requested to be addressed in the plan.

## **1.4 Trails and Access**

The major issue concerning the trails and access to them is that the trail system must be developed for a variety of uses. Existing roads and trails, redundant trails, and where trails link to off-site trails systems, such as the Trans County Trail, and to the CVREP (Carmel Valley Riparian Enhancement Program), and trail access points should be identified and clearly delineated on maps in the plan. Trail characteristics of various activities should be considered.

## **1.5 Natural Resource Protection**

The overriding issue of the Preserves is how to protect endangered species while allowing the public to use and enjoy them.

## **1.6 Cultural Resource Protection**

As with natural resources, the issue is how to protect the cultural resources while allowing the public to use and enjoy the recreational uses of the Preserves.

## **1.7 Allowable Recreational Uses**

The issue is how to integrate recreational uses with the protection of biological and cultural resources. The plan needs to address allowable and prohibited uses.

## **1.8 Private Property Access**

A few private parcels are surrounded by Preserve lands; the property owners require access to their property.

## **1.9 Format of the Plan**

Specificity and compatibility with agency management plan formats was requested for this plan.

## **1.10 Funding for Implementing the Plan**

Implementing a management plan for the two Preserves will be costly. Funding possibilities, such as grants, fines, and settlements, should be considered and discussed in the plan.

## **1.11 Fire Management**

The concern is the implementation of fire management on both Preserves.

## **1.12 Education Program**

Incorporation of an environmental awareness education program with schools of surrounding neighborhoods, such as the Site Stewardship program, should be addressed in the plan and made part of the Preserve management program.

## **1.13 Interim Planning**

At the scoping meeting, implementing interim protection measures to protect resources before the plan is completed was requested.

## **1.14 Management Monitoring**

Quantitative monitoring should be used to guide management of the Preserves.

## **1.15 Edge Effects and Urban Encroachment**

The effects of the adjacent developments on the Preserves, and the urban/wildland interface should be addressed in the plan.

## **1.16 Threats to the Natural and Cultural Resources**

Existing threats to the resources were identified at the scoping meeting: inadequate trail, access for horseback riders, exotic plant and animal invasion, and off-road-vehicle use.

## **1.17 Volunteer Involvement**

It was suggested that volunteer citizen involvement be encouraged in the plan.

## **1.18 Erosion and Sedimentation**

Erosion along the trails and within disturbed areas is of concern.

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## **APPENDIX 2**

### **General Management Plan for MSCP Areas**

# **1.0 General Management Plan for MSCP Areas**

## **1.1 Description of Northern Area**

The City has about two-thirds of the Los Penasquitos Lagoon/Canyon and Del Mar Mesa core area within its subarea. This core resource area encompasses one of the few intact natural open space areas in coastal San Diego County that is still linked to larger expanses of habitat to the east. Los Penasquitos Canyon is a regional corridor linking coastal habitats to inland habitats on Black Mountain and in Poway. Important resources in this area include saltmarsh, coastal sage scrub, and southern maritime chaparral. Covered species include San Diego thorn-mint, Shaw's agave, Del Mar manzanita, Encinitas baccharis, Orcutt's brodiaea, wart-stemmed ceanothus, short-leaved dudleya, variegated dudleya, San Diego button-celery, San Diego barrel cactus, willowy monardella, San Diego goldenstar, Torrey pine, San Diego mesa mint, Riverside fairy shrimp, southwestern pond turtle, San Diego horned lizard, orange-throated whiptail, California brown pelican, white-faced ibis, Canada goose, northern harrier, Cooper's hawk, golden eagle, western snowy plover, California least tern, burrowing owl, coastal cactus wren, California gnatcatcher, California rufous-crowned sparrow, Belding's savannah sparrow, grasshopper sparrow, mountain lion, and mule deer.

The northern area encompasses a large amount of developed and undeveloped land stretching from the Black Mountain Ranch area of the North City Future Urbanizing Area (NCFUA) south to Lopez Canyon in Los Penasquitos Canyon Preserve in Mira Mesa, and from the coast to Interstate 15. The area encompasses the communities of Carmel Valley, Sorrento Hills, Torrey Pines, Rancho Penasquitos, a portion of Mira Mesa, the Via de la Valley Specific Plan area, and the entire 12,000-acre NCFUA. In addition, the area also includes Torrey Pines State preserve, the Los Penasquitos Lagoon, and Los Penasquitos Canyon Preserve. The majority of the undeveloped private land is disturbed habitat, much of it having been farmed or grazed for decades or longer.

The MHPA in this area is largely comprised of regional linkages leading to biological core areas within existing reserves and parks. In the north lies the area surrounding Black Mountain Park, much of which serves as core area immediately in and surrounding the park, with the remainder of the lands allowing connections to the San Dieguito River Valley to the north and west, and providing one end of a lengthy regional corridor to the south. The core area contains valuable native habitats: mixed and chamise chaparral, coastal sage scrub, and native grassland. The corridor/linkage areas currently contain much non-native and disturbed habitat, including invasive exotic

species, and are in need of enhancement/restoration. The corridors also contain areas with non-native grasslands that are considered important raptor foraging habitats.

The central portion of the northern area is comprised of the heart of the City's North City Future Urbanizing Area, known as NCFUA Subareas 2, 3, 4, and 5. These encompass the San Dieguito Lagoon area, Gonzales Canyon, and most of the area lying between the communities of Carmel Valley and Rancho Penasquitos. NCFUA Subareas 3 and 4 contain only extended regional corridors, linking to the north, west, and south. These corridors primarily lie in canyons or drainages (e.g. La Zanja Canyon, McGonigle Canyon, and Gonzales Canyon), and the majority require restoration to enhance their long-term habitat value, as they are currently in agriculture and disturbed lands. NCFUA Subarea 5 contains core habitat area on the Del Mar Mesa north of Los Penasquitos Canyon Preserve as well as linkages containing disturbed lands and habitat leading toward Carmel Valley and Carmel Creek. NCFUA Subarea 2 contains a portion of the San Dieguito Lagoon enhancement area east of the I-5 freeway. The proposed MHPA boundary in this area is consistent with the open space configuration of the NCFUA Framework Plan, and contains wetlands including the San Dieguito River, limited coastal sage, chaparral, grasslands, and agriculturally disturbed lands.

The southwestern portion of this area contains Torrey Pines State Park, Crest Canyon, Los Penasquitos Lagoon, and Los Penasquitos Canyon Preserve which are core biological resource areas with high to moderate habitat values. Los Penasquitos Canyon Preserve contains large expanses of non-native grassland, and contains some restoration opportunities within its boundaries. This portion of the MHPA also contains linkages and habitat within the southern Carmel Valley neighborhoods (e.g. 8, 8A, and 10) and the Carmel Valley Restoration and Enhancement Project (CVREP), which is intended to serve as a wildlife linkage to the Los Penasquitos Lagoon and Torrey Pines State Park. Carmel Valley Neighborhood 10 contains two major wildlife corridors that converge at CVREP, where they link to adjacent core habitat on and north of Neighborhood 8A. Neighborhood 8, where CVREP is located, also contains existing houses, ranches, and rural-oriented businesses. These are incorporated within the MHPA boundary as low-density areas conditionally compatible with the MHPA.

The linkages to Torrey Pines State Reserve and Los Penasquitos Lagoon from the east are tentative at best. In the south, a rip-rap channel winds west from Los Penasquitos Canyon, underneath freeways, local roads, and railroad tracks to gain access to the Lagoon and State Park. The northern connection to the lagoon is located at the western terminus of CVREP, with 6-8 feet of clearance under the I-5 freeway to allow for Carmel Creek to drain into the lagoon. This wildlife connection is constrained as well.

The eastern portion of the Northern area includes linkages and open space within the Rancho Penasquitos, Mira Mesa, Sabre Springs, Scripps Ranch and Miramar Ranch communities, Miramar Lake and the General Dynamics property/Beeler Canyon area. This area includes core habitat in the Miramar-Poway areas as well as linkages that

extend from Los Penasquitos Canyon Preserve east through Sabre Springs into the Miramar Lake area, MCAS Miramar and Sycamore Canyon Regional Park. The proposed MHPA in this area is consistent with the open space of the existing communities, and includes a large block of habitat in the easternmost portion. This block of habitat is a mixture of chaparral and coastal sage scrub and is located immediately west of Sycamore Canyon Regional Park and north of MCAS Miramar.

## **1.1.1 General Management Plan for MSCP Areas**

### **1.1.1.1 Management Goals and Objectives**

The habitat management aspect of the City of San Diego's MHPA is an important component of the MSCP, related to the goal of the Program. The overarching MSCP goal is to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats, thereby preventing local extirpation and ultimate extinction, and minimizing the need for future listings, while enabling economic growth in the region.

Where land is preserved as part of the MSCP through acquisition, regulation, mitigation or other means, management is necessary to continue to ensure that the biological values are maintained over time, and that the species and habitats that have been set aside are adequately protected and remain viable.

The City will be responsible for and will continue the management and maintenance of its existing public lands (including those with conservation easement), at current levels. The City will also manage and maintain lands obtained as mitigation where those lands have been dedicated to the City in fee title or easement, and land acquired with regional funds within the City's MHPA boundaries. Likewise, the Federal and State agencies will manage, maintain and monitor their present land holdings, as well as those they acquire on behalf of the MSCP, consistent with the MSCP. Lands in the MHPA which are set aside as open space through the development process but are not dedicated in fee to the City, or other acceptable entity, will be managed by the landowner consistent with approved Mitigation, Monitoring and Reporting Programs or Permit conditions. Private owners of land within the MHPA, who are not third party beneficiaries, will have no additional obligations for the management or maintenance of their land.

In order to assure that the goal of the MHPA is attained and fulfilled, management objectives for the City of San Diego MHPA are as follows:

1. To ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the MHPA.

2. To protect the existing and restored biological resources from intense or disturbing activities within and adjacent to the MHPA while accommodating compatible public recreational uses.
3. To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.
4. To facilitate monitoring of selected target species, habitats, and linkages in order to ensure long-term persistence of viable populations of priority plant and animal species and to ensure functional habitats and linkages.
5. To provide for flexible management of the preserve that can adapt to changing circumstances to achieve the above objectives.

This section lists general management guidelines relevant to the entire City MHPA system, followed by specific guidelines and recommendations for each planned area of the MHPA, including the Otay Mesa area, the Otay River Valley, the Tijuana River Valley, the Eastern Area, Urban Areas, the Northern Area, Lake Hodges and the San Pasqual Valley, and the other Cornerstone Lands. Each area is unique in terms of its existing conditions, MHPA configuration, public or private ownership of land, the existence and location of sensitive species, and management needs.

Based on the above management objectives, the recommended management directives that follow have been identified in order of priority. It is recognized that many of these directives cannot be implemented on approval of the Plan, but will instead occur over the life of the Plan. The ability to implement many of the management directives will be directly related to the availability of funding. In addition, some of the management directives may be implemented as part of mitigation requirements for development projects both within and adjacent to the MHPA. Some of the tasks are also expected to be implemented as research efforts by the scientific and academic community at large.

The management directives are organized by priority into the following two categories. The priorities are intended to assist in the decisions on where to spend limited funds and direct mitigation efforts:

#### **a. Priority 1**

Directives that protect the resources in the MHPA, including management actions that are necessary to ensure that the Covered Species are adequately protected. Refer to Appendix A "Species Evaluated for Coverage under the MSCP."

## **b. Priority 2**

Directives other than those required for covered species status and other long-term items that may implemented during the life of the plan as funding becomes available.

The management directives listed in this section are a preliminary view of the management requirements of the MHPA within the City of San Diego. It is expected that modifications will be needed over time, based on realities encountered in the field as the MHPA is assembled. Monitoring of selected target species and other sensitive or constrained areas within the MHPA will occur as described in the MSCP Biological Monitoring Plan (under separate cover) with a general description of the Monitoring Plan provided in Section 1.5.13. The Monitoring Plan will inform MHPA (preserve) managers and staff of the general trends of wildlife use and species preservation, as well as indicate areas where special management focus is needed. Cooperation between the field managers, MSCP habitat management technical committee, and the wildlife agencies, is expected to occur to review and discuss existing and new management issues and to respond with practical, case-sensitive solutions. These solutions should be documented, and this management plan should be revised as needed to reflect new information.

An integral part of the management component is the previous section on Land Use Considerations that lists compatible land uses and states policies and guidelines related to the development of land uses within and adjacent to the MHPA. These policies and guidelines should be incorporated into projects during the land development review process. It should be noted that some of the management directives listed in the following sections may already be included as conditions of approved projects within or adjacent to the MHPA and are therefore considered part of this Subarea Plan.

### **1.1.1.2 General Management Directives**

The following general management directives apply to all areas of the City of San Diego's MSCP Subarea Plan, as appropriate.

#### **1.1.1.3 Mitigation**

Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.

#### **1.1.1.4 Restoration**

Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for

reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.

### **1.1.1.5 Public Access, Trails, and Recreation**

#### **a. Priority 1**

1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.
2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, or the seam between land uses (e.g. agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.
3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.
4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than 4 feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.
5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA. Locate staging areas for equestrian uses at a sufficient distance (e.g.

300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.

6. Off-road or cross country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.
7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted restrain pets on leashes.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.
9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g. grass-lined) swale or basin to detain runoff and remove pollutants.

#### **1.1.1.6 Litter/Trash and Materials Storage**

##### **a. Priority 1**

1. Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.
2. Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.
3. Prohibit permanent storage of materials (e.g. hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.
4. Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.

**b. Priority 2**

1. Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a "Neighborhood Watch" type program), and/or enforcement.

**1.1.1.7 Adjacency Management Issues**

The following management directives are in addition to those outlined in Section 1.4.3, and refer more specifically to management and monitoring requirements.

**a. Priority 1:**

1. Enforce, prevent and remove illegal intrusions into the MHPA (e.g. orchards, decks, etc.) on an annual basis, in addition to complaint basis.
2. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.
3. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.

**1.1.1.8 Invasive Exotics Control and Removal****a. Priority 1**

1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control re-invasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if

necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

## **b. Priority 2**

1. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Penasquitos Preserve has done). If done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated and relevant techniques used. Similarly, tamarisk removal should use The Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference The Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Penasquitos Canyon Preserve.
2. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.
3. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.
4. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide

signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.

#### **1.1.1.9 Flood Control**

The following management directives are in addition to the General Planning Policies and Guidelines outlined in Section 1.4.2.

##### **a. Priority 1**

1. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.

##### **b. Priority 2**

1. Review existing flood control channels within the MHPA periodically (every 5-10 years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.

## **1.2 Specific Management Policies and Directives for the MSCP Northern Area**

Including the North City Future Urbanizing Area (NCFUA), Carmel Valley, Rancho Penasquitos, Beeler Canyon, Scripps Ranch, Los Penasquitos Canyon and Lagoon, Torrey Pines State Park, Sorrento Hills, and portions of the University and Mira Mesa communities.

### **1.2.1 Background**

#### **1.2.1.1 Goals and Objectives**

The MHPA in the Northern area consists primarily of regional wildlife corridors providing linkages to the core areas of Del Mar Mesa, Los Penasquitos Canyon Preserve, Los Penasquitos Lagoon, Torrey Pines State Park, the proposed San Dieguito River Valley Regional Park and the Black Mountain area. These linkages and core areas provide an important network of viable native habitats and plant communities, support the full range of native species, and provide functional wildlife connections over the long-term.

### 1.2.1.2 Covered Species

Covered species in the Northern area include:

#### Plants

Del Mar manzanita  
Orcutt's brodiaea  
Encinitas baccharis  
San Diego barrel cactus  
San Diego button-celery  
San Diego goldenstar  
San Diego mesa mint  
San Diego thorn-mint  
Shaw's agave  
Short-leaved dudleya  
Torrey pine  
Variegated dudleya  
Wart-stemmed ceanothus  
Willow monardella

#### Animals

Belding's savannah sparrow  
Burrowing owl  
California brown pelican  
California gnatcatcher  
California least tern  
California rufous-crowned sparrow  
Canada goose  
Coastal cactus wren  
Cooper's hawk  
Golden eagle  
Mountain lion  
Mule deer  
Northern harrier  
Orange-throated whiptail  
Riverside fairy shrimp  
San Diego horned lizard  
Southwestern pond turtle  
Western snowy plover  
White-faced ibis

### 1.2.1.3 Major Issues

The major issues for management in the Northern area based on existing conditions, are the following, in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Itinerant living quarters.
3. Enhancement and restoration needs.
4. Exotic (non-native), invasive plants and animals.
5. Water drainage issues, including water quality, urban runoff, erosion, sedimentation, and flood control.
6. Utility, facility and road repair, construction, and maintenance activities.

### **1.3 Specific Management Directives for the Northern Area**

The following policies and directives for the Northern area are described in the following text, generally from north to south and east to west.

#### **1.3.1 North City Future Urbanizing Area:**

##### **1.3.1.1 NCFUA Subarea 5**

###### **a. Priority 1:**

1. Clearly demarcate all trails through the Del Mar Mesa area and provide split rail fencing or barriers and signage along sensitive portions to discourage off-trail use. Trails through this area should use the existing disturbed roads as much as possible. No new trails should be cut through existing habitat. Assess existing dirt and disturbed roads and trails for restoration over the long-term.
2. Develop an equestrian use plan for the Del Mar Mesa area that avoids the vernal pool habitat and their associated watershed areas. If possible, the Del Mar Mesa area should be managed as a single unit rather than split into separate entities according to ownership (County, various City departments, easements).

##### **1.3.1.2 Carmel Valley Neighborhood 8A**

###### **a. Priority 1:**

1. Redirect human access from vernal pools and dudleya populations through signage and fencing as necessary to delineate and protect the sensitive areas.

2. Develop an equestrian use plan including a trail system so as to avoid as much as possible wetlands and other highly sensitive areas.
3. Monitor this sensitive area for off-road and off-trail use, and take necessary measures to prevent such use, and repair damage (at minimum, closure of areas) as soon as feasible. Also assess for invasive plant species and remove as soon as possible.

**b. Priority 2:**

1. Use some of the existing dirt roads for trails, and avoid cutting new trails through habitat areas. Restore/revegetate dirt roads (not used as trails) and other disturbed areas to the appropriate habitat (maritime chaparral, vernal pool, grassland, coastal sage scrub), as determined by biologists.

## **APPENDIX 3**

### **Wildlife and Plant Species Lists for Carmel Mountain and Del Mar Mesa Preserves**

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## APPENDIX 3a

### Plant Species on Carmel Mountain Preserve

**APPENDIX 3a**  
**PLANT SPECIES OBSERVED ON CARMEL MOUNTAIN**

Scientific Name	Common Name	Origin
<i>Achnatherum coronatum</i> (Thurber) Barkworth	Giant needlegrass	N
<i>Adenostoma fasciculatum</i> Hook. & Arn.	Chamise	N
<i>Adolphia californica</i> Wats.	California adolphia, spineshrub	N
<i>Allium praecox</i> Bdg.	Wild onion	N
<i>Ambrosia psilostachya</i> DC.	Western ragweed	N
<i>Anagallis arvensis</i> L.	Scarlet pimpernel, poor-man's weatherglass	I
<i>Antirrhinum nuttallianum</i> Benth. in DC.	Snapdragon	N
<i>Arctostaphylos glandulosa</i> Eastw. ssp. <i>crassifolia</i> (Jepson) Wells	Del Mar manzanita, Costa Baja manzanita	N
<i>Artemisia californica</i> Less.	California sagebrush	N
<i>Atriplex semibaccata</i> R.Br.	Australian saltbush	I
<i>Avena</i> sp.	Wild oats	N
<i>Avena barbata</i> Link	Slender wild oat	I
<i>Baccharis pilularis</i> DC.	Coyote bush	N
<i>Baccharis salicifolia</i> (Ruiz Lopez & Pavón) Pers.	Mule fat, seep-willow	N
<i>Baccharis sarothroides</i> A. Gray	Broom baccharis	N
<i>Bloomeria crocea</i> (Torrey) Cov.	Common goldenstar	N
<i>Brassica nigra</i> (L.) Koch.	Black mustard	I
<i>Brodiaea orcuttii</i> (E. Greene) Baker	Orcutt's brodiaea	N
<i>Bromus hordaceus</i> L.	Smooth brome	I
<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	Foxtail chess	I
<i>Calandrinia maritima</i> Nutt.	Seaside calandrinia	N
<i>Callitriche marginata</i> Torrey	Water-starwort	N
<i>Calystegia macrostegia</i> ssp. <i>arida</i> (E. Greene) Brum	Finger-leaf morning morning-glory	N
<i>Calystegia macrostegia</i> ssp. <i>tenuifolia</i> (Abrams) Brum	Chaparral morning-glory	N
<i>Camissonia bistorta</i> (Torrey & A. Gray) Raven	California sun cup	N
<i>Carex triquetra</i> Boott.	Triangular-fruit sedge	N
<i>Castilleja affinis</i> Hook. & Arn. ssp. <i>affinis</i>	Indian paint brush	N
<i>Castilleja exserta</i> (A.A. Heller) Chuang & Heckard	Purple owl's clover	N
<i>Ceanothus verrucosus</i> Nutt.	Wart-stemmed ceanothus	N
<i>Centaurea melitensis</i> L.	Tocolote, star-thistle	I
<i>Centaurium venustum</i> (A. Gray) Rob.	Canchalagua	N
<i>Centunculus minimus</i> L.	Chaffweed	N

**APPENDIX 3a**  
**PLANT SPECIES OBSERVED ON CARMEL MOUNTAIN**  
(continued)

Scientific Name	Common Name	Origin
<i>Cercocarpus minutiflorus</i> Abrams	Mountain-mahogany	N
<i>Chamaesyce polycarpa</i> (Benth.) Millsp.	Spurge	N
<i>Chenopodium</i> sp.	Goosefoot	I
<i>Chlorogalum parviflorum</i> Wats.	Amole, soap plant	N
<i>Chorizanthe staticoides</i> Benth.	Turkish rugging	N
<i>Claytonia perfoliata</i> Willd.	Miner's lettuce	N
<i>Collinsia heterophylla</i> Buist.	Chinese houses	N
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> (Parry) E. Greene	Summer holly	N
<i>Conyza canadensis</i> (L.) Cronq.	Horseweed	N
<i>Coreopsis maritima</i> (Nutt.) Hook.f.	Sea-dahlia	N
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar sand aster	N
<i>Cortaderia jubata</i> (Lemoine) Stapf	Pampas grass	I
<i>Cotula coronopifolia</i> L.	Brass-buttons	I
<i>Crassula aquatica</i> (L.) Schoen.	Stone-crop	N
<i>Croton californicus</i> Muell.-Arg.	California croton	N
<i>Cryptantha</i> sp.	Cryptantha	N
<i>Datura wrightii</i> Regel	Jimson weed	N
<i>Dicentra chrysantha</i> (Hook. & Arn.) Walp.	Golden ear-drops	N
<i>Dichelostemma capitatum</i> Alph. Wood	Blue dicks	N
<i>Dichondra occidentalis</i> House	Western dichondra	N
<i>Dodecatheon clevelandii</i> E. Greene ssp. <i>clevelandii</i>	Shooting star	N
<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i> (Eastw.) Moran	Short-leaved dudleya	N
<i>Dudleya edulis</i> (Nutt.) Moran	Lady fingers	N
<i>Dudleya lanceolata</i> (Nutt.) Britt. & Rose	Live-for-ever	N
<i>Dudleya pulverulenta</i> (Nutt.) Britt. & Rose ssp. <i>pulverulenta</i>	Chalk lettuce	N
<i>Elatine</i> sp.	Waterwart	N
<i>Eleocharis macrostachya</i> Britton	Pale spikerush	N
<i>Encelia californica</i> Nutt.	Common encelia	N
<i>Eremocarpus setigerus</i> (Hook.) Benth.	Dove weed	N
<i>Erigeron foliosus</i> Nutt.	Leafy fleabane	N
<i>Eriogonum fasciculatum</i> Benth. var. <i>fasciculatum</i>	California buckwheat	N

**APPENDIX 3a**  
**PLANT SPECIES OBSERVED ON CARMEL MOUNTAIN**  
(continued)

Scientific Name	Common Name	Origin
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray var. <i>confertiflorum</i>	Golden-yarrow	N
<i>Erodium</i> sp.	Filaree, storksbill	I
<i>Erodium botrys</i> (Cav.) Bertol.	Pin-clover	I
<i>Eschscholzia californica</i> Cham.	California poppy	N
<i>Ferocactus viridescens</i> (Torrey & A. Gray) Britt. & Rose	Coast barrel cactus	N
<i>Festuca</i> sp.	Fescue	N
<i>Festuca rubra</i> L.	Red fescue	N
<i>Filago gallica</i> L.	Narrow-leaf herba impia	I
<i>Foeniculum vulgare</i> Mill.	Fennel	I
<i>Galium angustifolium</i> Nutt. <i>angustifolium</i>	Narrow-leaf bedstraw	N
<i>Galium nuttallii</i> A. Gray	San Diego bedstraw	N
<i>Gnaphalium bicolor</i> Bioletti	Bicolored cudweed	N
<i>Gnaphalium californicum</i> DC.	Green everlasting	N
<i>Hazardia squarrosa</i> (Hook. & Arn.) E. Greene	Sawtoothed goldenbush	N
<i>Helianthemum scoparium</i> Nutt.	Peak rush-rose	N
<i>Hemizonia fasciculata</i> (DC.) Torrey & A. Gray	Golden tarplant	N
<i>Heteromeles arbutifolia</i> (Lindley) Roemer	Toyon, Christmas berry	N
<i>Heterotheca grandiflora</i> Nutt.	Telegraph weed	N
<i>Holocarpha virgata</i> (A. Gray) Keck	Tarplant	N
<i>Hypochaeris glabra</i> L.	Smooth cat's-ear	I
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom	Coast goldenbush	N
<i>Isoetes howellii</i> Engelm.	Howell quillwort	N
<i>Jepsonia parryi</i> (Torrey) Small	Mesa saxifrage	N
<i>Juncus bufonius</i> L.	Toad rush	N
<i>Juncus dubius</i> Engelm.	Mariposa rush	N
<i>Juncus mexicanus</i> Willd.	Mexican rush	N
<i>Lasthenia californica</i> Lindley	Goldfields	N
<i>Lessingia filaginifolia</i> (Hook. & Arn.) M.A. Lane var. <i>filaginifolia</i>	California-aster	N
<i>Leymus condensatus</i> (C. Presl) A. Love	Giant ryegrass	N
<i>Lilaea scilloides</i> (Poir) Haum.	Flowering quillwort	N
<i>Lonicera subspicata</i> Hook. & Arn. Var. <i>enudate</i> Rehd.	Wild honeysuckle	N

**APPENDIX 3a**  
**PLANT SPECIES OBSERVED ON CARMEL MOUNTAIN**  
(continued)

Scientific Name	Common Name	Origin
<i>Lotus scoparius</i> (Nutt. In Torrey & A. Gray) Ottley var. <i>scoparius</i>	California broom	N
<i>Lupinus bicolor</i> Lindl.	Miniature lupine	N
<i>Lythrum hyssopifolium</i> L.	Grass poly	N
<i>Malacothamnus fasciculatus</i> (Torrey & A. Gray) E. Greene	Chaparral mallow	N
<i>Malosma laurina</i> (Nutt.) Abrams	Laurel sumac	N
<i>Marah macrocarpus</i> (E. Greene) E. Greene	Wild cucumber	N
<i>Mesembryanthemum crystallinum</i> L.	Crystalline ice plant	I
<i>Mesembryanthemum nodiflorum</i> L.	Slender-leaved ice plant	I
<i>Mimulus aurantiacus</i> Curtis	Bush monkeyflower	N
<i>Mirabilis bigelovii</i> A. Gray var. <i>bigelovii</i>	Wishbone bush	N
<i>Muhlenbergia rigens</i> (Benth.) A. Hitchc.	Deergrass	N
<i>Muilla clevelandii</i> (Wats.) Hoover	San Diego Goldenstar	N
<i>Nassella lepida</i> (A. Hitchc.) Barkworth	Foothill needlegrass	N
<i>Nassella pulchra</i> (A. Hitchc.) Barkworth	Purple needlegrass	N
<i>Navarretia hamata</i> E. Greene	Hooked navarretia	N
<i>Nicotiana glauca</i> Grah.	Tree tobacco	I
<i>Ophioglossum californicum</i> Prantl.	California adder's-tongue	N
<i>Opuntia littoralis</i> (Engelm.) Cockerell.	Shore cactus	N
<i>Opuntia prolifera</i> Engelm.	Cholla	N
<i>Phacelia grandiflora</i> (Benth.) A. Gray	Large-flowered phacelia	N
<i>Phacelia minor</i> (Harvey) Thell	Wild canterbury-bell	N
<i>Phalaris lemmonii</i> Vasey	Lemmon canary grass	I
<i>Pickeringia montana</i> Nutt. var. <i>tomentosa</i> (Abrams) J.M. Johnston	Chaparral-pea	N
<i>Pinus torreyana</i> Carriere	Torrey pine	N
<i>Plagiobothrys</i> sp.	Popcornflower	N
<i>Plantago elongata</i> Pursh	Plantain	N
<i>Plantago erecta</i> Morris	Dot-seed plantain	N
<i>Polypodium californicum</i> Kaulf.	California polypody	N
<i>Psilocarphus brevissimus</i> Nutt. var. <i>brevissimus</i>	Dwarf woolly-heads	N
<i>Psilocarphus tenellus</i> Nutt. var. <i>tenellus</i>	Woolly-heads	N
<i>Quercus dumosa</i> Nutt.	Nuttall's scrub oak	N

**APPENDIX 3a**  
**PLANT SPECIES OBSERVED ON CARMEL MOUNTAIN**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Raphanus sativus</i> L.	Radish	I
<i>Rhus integrifolia</i> (Nutt.) Brewer & Watson	Lemonadeberry	N
<i>Ribes speciosum</i> Pursh.	Fuchsia-flowered gooseberry	N
<i>Rumex crispus</i> L.	Curly dock	I
<i>Salix lasiolepis</i> Benth.	Arroyo willow	N
<i>Salvia apiana</i> Jepson	White sage	N
<i>Salvia mellifera</i> E. Greene	Black sage	N
<i>Sambucus mexicana</i> C. Presl	Blue elderberry	N
<i>Scrophularia californica</i> Cham. & Schldl.	California figwort	N
<i>Selaginella bigelovii</i> L. Underw.	Bigelow clubmoss	N
<i>Selaginella cinerascens</i> Maxon	Ashy spike-moss	N
<i>Senecio californicus</i> DC.	California groundsel	N
<i>Silene gallica</i> L.	Windmill pink	I
<i>Sisyrinchium bellum</i> Wats.	Blue-eyed-grass	N
<i>Solanum parishii</i> A.A. Heller	Parish's nightshade	N
<i>Sonchus oleraceus</i> L.	Common sow thistle	I
<i>Stephanomeria virgata</i> (Benth.) ssp. <i>virgata</i>	Slender stephanomeria	N
<i>Stylocline gnaphaloides</i> Nutt.	Everlasting nest straw	N
<i>Trifolium</i> sp.	Clover	N
<i>Xanthium strumarium</i> L.	Cocklebur	N
<i>Xylococcus bicolor</i> Nutt.	Mission manzanita	N
<i>Yucca schidigera</i> K.E. Ortgies	Mohave yucca	N
<i>Zigadenus fremontii</i> (Torrey) S. Watson	Star-lily	N

HABITATS

- N = Native to locality  
I = Introduced species from outside locality

## APPENDIX 3b

### Wildlife Species on Carmel Mountain Preserve

**APPENDIX 3b**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE CARMEL MOUNTAIN PROJECT SITE**

Common Name	Scientific Name	Status
<u>Fairy Shrimp</u> (Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	FE, MSCP, *
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Western spadefoot	<i>Spea hammondi</i>	CSC
Pacific treefrog	<i>Pseudacris regilla</i>	
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Two-striped garter snake	<i>Thamnophis hammondi</i>	*
San Diego horned lizard	<i>Phrynosoma coronatum blainvillii</i>	CSC,*,MSCP
Western fence lizard	<i>Sceloporus occidentalis</i>	
Side-blotched lizard	<i>Uta stansburiana</i>	
Belding's orange-throated whiptail	<i>Aspidoscelis hyperythra beldingi</i>	CSC,MSCP
Northern Red diamond rattlesnake	<i>Crotalus ruber</i>	CSC
<u>Birds</u> (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)		
Turkey vulture	<i>Cathartes aura</i>	
White-tailed kite	<i>Elanus leucurus</i>	CFP, *
Northern harrier	<i>Circus cyaneus hudsonius</i>	CSC,MSCP
Cooper's hawk	<i>Accipiter cooperi</i>	CSC,MSCP
Red-shouldered hawk	<i>Buteo lineatus elegans</i>	
Red-tailed hawk	<i>Buteo jamaicensis</i>	
American kestrel	<i>Falco sparverius</i>	
California quail	<i>Callipepla californica californica</i>	
Killdeer	<i>Charadrius vociferus vociferus</i>	
Mourning dove	<i>Zenaida macroura marginella</i>	
Rock dove	<i>Columba livia</i>	
Greater roadrunner	<i>Geococcyx californianus</i>	
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	CSC,MSCP
White-throated swift	<i>Aeronautes saxatalis</i>	
Anna's hummingbird	<i>Calypte anna</i>	
Rufous hummingbird	<i>Selasphorus rufus</i>	
Nuttall's woodpecker	<i>Picoides nuttallii</i>	

**APPENDIX 3b**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE CARMEL MOUNTAIN PROJECT SITE**  
**(continued)**

Common Name	Scientific Name	Status
Pacific slope flycatcher	<i>Empidonax difficilis</i>	
Ash-throated flycatcher	<i>Myiarchus cinerascens cinerascens</i>	
Cassin's kingbird	<i>Tyrannus vociferans vociferans</i>	
Western kingbird	<i>Tyrannus verticalis</i>	
California horned lark	<i>Eremophila alpestris actia</i>	CSC
Cliff swallow	<i>Hirundo pyrrhonota tachina</i>	
Western scrub-jay	<i>Apelocoma californica</i>	
Common raven	<i>Corvus corax clarionensis</i>	
Loggerhead shrike	<i>Lanius ludovicianus</i>	CSC
Bushtit	<i>Psaltiriparus minimus minimus</i>	
Bewick's wren	<i>Thyromanes bewickii</i>	
House wren	<i>Troglodytes aedon parkmanii</i>	
Northern mockingbird	<i>Mimus polyglottos polyglottos</i>	
California thrasher	<i>Toxostoma redivivum redivivum</i>	
Wrentit	<i>Chamaea fasciata henshawi</i>	
Blue-gray gnatcatcher	<i>Poliopitila caerulea</i>	
Coastal California gnatcatcher	<i>Poliopitila californica californica</i>	FT,CSC,MSCP
Lesser goldfinch	<i>Carduelis psaltria hesperophilus</i>	
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	
House finch	<i>Carpodacus mexicanus frontalis</i>	
Orange-crowned warbler	<i>Vermivora celata</i>	
Yellow-rumped warbler	<i>Dendroica coronata</i>	
Common yellowthroat	<i>Geothlypis trichas</i>	
Black-headed grosbeak	<i>Pheucticus melanocephalus maculatus</i>	
Spotted towhee	<i>Pipilo maculatus</i>	
California towhee	<i>Pipilo crissalis</i>	
Bell's sage sparrow	<i>Amphispiza belli belli</i>	CSC
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	CSC,MSCP
Grasshopper sparrow	<i>Ammodramus savannarum perpallidus</i>	MSCP
Song sparrow	<i>Melospiza melodia</i>	
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	
Dark-eyed junco	<i>Junco hyemalis</i>	

**APPENDIX 3b**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE CARMEL MOUNTAIN PROJECT SITE**  
**(continued)**

Common Name	Scientific Name	Status
Western meadowlark	<i>Sturnella neglecta</i>	
Oriole	<i>Icterus</i> spp.	
<u>Mammals</u> (Nomenclature from Jones et al. 1997)		
California ground squirrel	<i>Spermophilus beecheyi</i>	
Southern pocket gopher	<i>Thomomys umbrinus</i> (= <i>bottae</i> )	
Pacific (= agile) kangaroo rat	<i>Dipodomys agilis</i>	
Deer mouse	<i>Peromyscus maniculatus</i>	
Woodrat	<i>Neotoma</i> spp.	
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	CSC
Brush rabbit	<i>Sylvilagus bachmani</i>	
White-footed mouse	<i>Peromyscus</i> sp.	
Coyote	<i>Canis latrans</i>	
Gray fox	<i>Urocyon cinereoargenteus</i>	
Mountain lion	<i>Felis concolor</i>	CFP,MSCP
Southern mule deer	<i>Odocoileus hemionus fuliginata</i>	MSCP

STATUS

- CFP = California fully protected species  
CSC = California Department of Fish and Game species of special concern  
FE = Listed as endangered by the federal government  
FT = Listed as threatened by the federal government  
MSCP = Multiple Species Conservation Program covered species  
\* = Taxa listed with an asterisk fall into one or more of the following categories:
- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
  - Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
  - Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
  - Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

## APPENDIX 3c

### Sensitive Plant Species on Carmel Mountain Preserve

**APPENDIX 3c**  
**SENSITIVE PLANT SPECIES OBSERVED ON THE CARMEL MOUNTAIN PRESERVE**

Species	State/Federal Status	CNPS List	CNPS Code	Typical Habitat/Comments
<i>Adolphia californica</i> California adolphia	—/—	2	1-2-1	Chaparral/observed on-site
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	—/FE	1B	3-3-2	Coastal chaparral/observed-on site
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	—/—	1B	1-3-2	Closed-cone coniferous forest, meadows, cismontane wood-land, valley and foothill grass-land, vernal pools/observed on-site
<i>Calandrinia maritima</i> Seaside calandrinia	—/—	4	1-2-1	Coastal bluff scrub, valley and foothill grassland/observed on-site
<i>Ceanothus verrucosus</i> Wart-stemmed ceanothus	—/—	2	1-2-1	Chaparral
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer holly	—/—	1B	2-2-2	Chaparral/observed on-site
<i>Coreopsis maritima</i> Sea dahlia	—/—	2	2-2-1	Coastal sage scrub/observed on-site
<i>Dichondra occidentalis</i> Western dichondra	—/—	4	1-2-1	Chaparral, cismontane wood-land, coastal sage scrub, valley and foothill grassland/observed on-site
<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i> (= <i>Dudleya brevifolia</i> ) Short-leaved dudleya	CE/—	1B	3-3-3	Chaparral, coastal sage scrub (Torrey sandstone)/observed on-site
<i>Ferocactus viridescens</i> Coast barrel cactus	—/—	2	1-3-1	Chaparral, coastal sage scrub, valley and foothill grassland/observed on-site
<i>Lessingia filaginifolia</i> var. <i>filaginifolia</i> (= <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> ) Del Mar Mesa sand aster	—/—	1B	3-2-3	Chaparral, coastal sage scrub/observed on-site
<i>Muilla clevelandii</i> San Diego goldenstar	—/—	1B	2-2-2	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools
<i>Ophioglossum californicum</i> (= <i>Ophioglossum lusitanicum</i> ssp. <i>californicum</i> ) California adder's-tongue fern	—/—	4	1-2-2	Clay mesa soils/observed on-site
<i>Pinus torreyana</i> ssp. <i>torreyana</i> Torrey pine	—/—	1B	3-2-3	Closed-cone coniferous forest/observed on-site
<i>Quercus dumosa</i> Nuttall's scrub oak	—/—	1B	2-3-2	Coastal chaparral

**APPENDIX 3c**  
**SENSITIVE PLANT SPECIES OBSERVED ON THE CARMEL MOUNTAIN PRESERVE**  
**(continued)**

**SENSITIVITY CODES**

**FEDERAL CANDIDATES AND LISTED PLANTS**

FE = Federally listed, endangered  
FT = Federally listed, threatened  
FPE = Federally proposed endangered  
FPT = Federally proposed threatened

**STATE LISTED PLANTS**

CE = State listed, endangered  
CR = State listed, rare  
CT = State listed, threatened

**CALIFORNIA NATIVE PLANT SOCIETY**

**LISTS**

- 1A = Species presumed extinct.
- 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
- 2 = Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.
- 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
- 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

**R-E-D CODES**

**R (Rarity)**

- 1 = Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
- 2 = Occurrence confined to several populations or to one extended population.
- 3 = Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

**E (Endangerment)**

- 1 = Not endangered
- 2 = Endangered in a portion of its range
- 3 = Endangered throughout its range

**D (Distribution)**

- 1 = More or less widespread Outside California
- 2 = Rare outside California
- 3 = Endemic to California

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## APPENDIX 3d

Descriptions of Sensitive Species  
Occurring on the Carmel Mountain Preserve and  
Not Covered by the MSCP

**APPENDIX 3d**  
**Descriptions of Sensitive Species Occurring**  
**on the Carmel Mountain Preserve and Not Covered by the MSCP**

**California adolphia (*Adolphia californica*).** California adolphia is a CNPS List 2 species in the buckthorn family (Rhamnaceae). This species generally occurs in Diegan coastal sage scrub or near the edge of chaparral, in dry locales with shrubs four to five feet tall. On Carmel Mountain, California adolphia is present in the southern maritime chaparral, on the southeastern portion of the Preserve. The population on the Preserve has been disturbed by road grading and trash dumping. This shrub flowers from December to April and loses its leaves in late summer and fall, making it difficult to find. Its spiny stems are identifiable at close range year-round, however. It is associated with San Miguel and Friant soils (Reiser 2001). Its geographic range extends from San Diego County south into Baja California. In San Diego County, it is found from the Carlsbad area south into the Proctor Valley and Otay region (Beauchamp 1986).

**South coast saltbush (*Atriplex pacifica*).** South coast saltbush is an annual herb and a member of the Chenopodiaceae (goosefoot) family. It is a CNPS List 1B species. This species is found within coastal bluff scrub and coastal sage scrub from Ventura County south to Baja California, Mexico. South coast saltbush superficially resembles the introduced Australian saltbush (*Atriplex semibaccata*), common throughout southern California.

**Seaside calandrinia (*Calandrinia maritima*).** Seaside calandrinia is a CNPS List 4 species, with low numbers throughout its range along the coast from Santa Barbara County southward into Baja California, Mexico, and on the Channel Islands. This succulent annual herb in the purslane family (Portulacaceae) flowers from March through May. It is typically found on sandy bluffs and openings in coastal sage scrub flats near the beach. It has been mapped on Gaviota fine sandy loam and Terrace Escarpment soils (Reiser 2001). Because the species inhabits coastal environments, development has reduced the number of populations throughout its range. On Carmel Mountain Preserve, this species is present in southern maritime chaparral north and northwest of Carmel Mountain.

**Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*).** Summer holly is a CNPS List 1B species. This evergreen shrub in the heath family (Ericaceae) reaches heights of 15 feet and produces a small white flower from April to June (Munz 1974). Summer holly is found in the chaparral in Orange, Riverside, and San Diego Counties, as well as Baja California, Mexico. In San Diego County it generally occurs at low elevations in chaparral communities near the coast. Summer holly is threatened by development and gravel mining (CNPS 2001). It has been documented as occurring on Carmel Mountain Preserve, but its location has not been mapped.

**Sea dahlia (*Coreopsis maritima*).** Sea dahlia is a CNPS List 2 species. This perennial herb in the sunflower family (Asteraceae) has semi-succulent leaves and reaches two feet in height. It flowers from March to June. It typically grows on coastal bluffs and dunes below 200 feet elevation in coastal strand or coastal sage scrub. Its range extends along the coast from Encinitas in San Diego County south to near San Quentin, Baja California, Mexico. On Carmel Mountain Preserve, sea dahlia is present on north slopes within southern maritime chaparral. The population is currently presumed stable, due to lack of disturbance in that area of the Preserve. Threats to the species include loss of habitat and erosion of remaining sandstone seabluff habitat.



Photograph A3d-1. Sea Dahlia



Photograph A3d-2.  
Sea Dahlia Flowers

**Western dichondra (*Dichondra occidentalis*).** Western dichondra is a CNPS List 4 species, indicating that it has limited distribution or is infrequent throughout its range. Its range extends from Ventura County south into Baja California, Mexico, including the Channel Islands. In San Diego County, it is known from Agua Hedionda south to Point Loma and inland to Poway, Otay Mountain, and the Tijuana Hills (Beauchamp 1986). This small perennial herb in the morning-glory family (Convolvulaceae) flowers from March to May. It often grows almost completely hidden under shrubs or trees in coastal sage scrub and chaparral, or among rocky outcrops in grasslands. It grows primarily in dry sandy soils including Heuerhuero soils and Hambright gravelly clay loam (Reiser 2001). On Carmel Mountain Preserve, this



Photograph A3d-3. Western Dichondra

species is found in southern maritime chaparral, adjacent to and within the 1986 burned area. The numbers of western dichondra are in a slow decline in southern California because habitat is being lost to development and weeds are invading native plant communities.

**California adder's-tongue fern (*Ophioglossum californicum*).** California adder's-tongue fern is a CNPS List 4 whose range extends from the Sierra Nevada foothills to southern California and southward into Baja California, Mexico. In San Diego County, the fern has been reported from Kearny Mesa, Olivenhain, Proctor Valley, and Escondido (Beauchamp 1986). This perennial rhizomatous herb typically occurs on grassy slopes and near vernal pools and seeps, in coastal and foothill locations below 900 feet elevation. The California adder's-tongue fern is easily observed during the springtime, but becomes inconspicuous later in the season. This species is associated with vernal pools and other seasonal wetlands and wet meadows on the Preserve.

**Nuttall's scrub oak (*Quercus dumosa*).** Nuttall's scrub oak is a member of the Fagaceae family. This evergreen shrub is a CNPS *Inventory* (CNPS 2001) List 1B species that occurs in Santa Barbara, Orange, and San Diego Counties as well as in Baja California, Mexico. Nuttall's scrub oak is found within chaparral and coastal sage scrub vegetation on sandy or clay loam soils. This species occurs abundantly within southern maritime chaparral on the Preserve.

**Two-striped garter snake (*Thamnophis hammondi*).** The two-striped garter snake is a sensitive species that may grow as long as 36 inches though 18 to 24 inches is more usual. Its dorsal scales are keeled, which breaks up the reflection of light and results in a dull luster. The overall color is olive drab with a single yellowish stripe running down each side of the body. Patterned into the dorsal coloration are four rows of small, dark spots. The belly is dull yellow, or sometimes salmon colored. The two-striped garter snake ranges in coastal California from the vicinity of Salinas south to El Rosario in Baja California, Mexico. They are normally found in or near permanent fresh water, inhabiting streams, ponds, and lakes throughout their range. They are often found even in temporary bodies of water such as vernal pools. It is the most common snake in southern California, and it is not unusual to encounter several individuals at a time. Activity is most common around dusk and in the early evening. Adults feed on frogs, tadpoles, toads, insect larvae, fish, fish eggs, and earthworms. The two-striped garter snake is ovoviviparous. Breeding commences in April and May and continues throughout the summer months. Gestation is approximately nine weeks. As many as 25 young may be born, though 12 to 13 is more common.



**Photograph A3d-4.** Red Diamond Rattlesnake at Carmel Mountain

**Northern red diamond rattlesnake (*Crotalus ruber*).** The northern red diamond rattlesnake is a CDFG species of special concern. This species occurs below 1,200 meters (4,000 feet) on both sides of the Peninsular Ranges of southwestern California in coastal sage scrub, desert scrub, open chaparral, woodland, and grassland habitats, as well as agricultural fields (Stebbins 1985). This snake is commonly found in areas with rock outcrops. Population declines in the red diamond rattlesnake are generally attributable to impacts related to the increased development near habitat in which this snake is found.

**White-tailed kite (*Elanus leucurus*).** The white-tailed kite is a California fully protected species that occurs in coastal lowland areas from Oregon to northern Baja California, Mexico (National Geographic Society 1983). This resident bird nests in riparian woodlands, live oaks, or sycamore groves which border grassland or open fields (Unitt 1984 and 2004). The white-tailed kite forages over open areas and grasslands feeding primarily on small rodents, in particular the California vole or meadow mouse (Unitt 2004), and insects (National Geographic Society 1983). This species is known to roost in large communal groups (Unitt 1984 and 2004). White-tailed kite populations in southern California have declined due to the loss of grassland foraging habitat to urbanization.

**Coastal subspecies of the horned lark (*Eremophila alpestris actia*).** The coastal subspecies of the horned lark is a CDFG species of special concern. The horned lark (*E. alpestris*) ranges throughout North America; however, the coastal subspecies occupies the coastal slope of San Diego County, extending east to Montezuma Valley (Ranchita), Mason Valley, and Jacumba (Unitt 2004). Other subspecies and hybrids with other subspecies have been encountered in San Diego County (Unitt 2004). Horned larks occur in the coastal strand, arid grasslands, and sandy desert floors of San Diego County year round (Unitt 2004). Decline of this species is generally attributed to urbanization and human disturbance.

**Blue-gray gnatcatcher (*Polioptila caerulea*).** The blue-gray gnatcatcher is on the sensitive species list for the City of San Diego. The blue-gray gnatcatcher is distributed throughout Mexico and the U.S., excluding northern plains states and the northwest. Locally, this species is a fairly common migrant and winter visitor and a rare and localized summer resident. The blue-gray gnatcatcher winters in dense riparian undergrowth, weedy/brushy agricultural areas, thickets in desert washes, and occasionally chaparral. It breeds in foothill chaparral, desert-edge scrub, and mesquite thickets. Brood-parasitism by brown-headed cowbirds is one contributing reason to the decline of this species.

**Loggerhead shrike (*Lanius ludovicianus*).** The loggerhead shrike is a CDFG species of special concern. This species inhabits most of the continental U.S. and Mexico and is a year-round resident of southern California. The loggerhead shrike prefers open habitat with perches for hunting and fairly dense shrubs for nesting (Small 1994). In southern California, this bird inhabits grasslands, agricultural fields, chaparral, and desert scrub (Unitt 1984). Loggerhead shrikes feed on small reptiles and insects that they often impale on sticks or thorns before eating (Robbins et al. 1983). Loggerhead shrike populations are declining, likely due to urbanization and loss of habitat.

**Bell's sage sparrow (*Amphispiza belli belli*).** Bell's sage sparrow is a CDFG species of special concern. Bell's sage sparrow is an uncommon to locally fairly common resident along the extreme west coast of California. Its breeding range is along the coastal slopes from Trinity County south into northwestern Baja California, Mexico. Locally, it can be found in the interior chaparral and coastal sage scrub habitats, especially dense stands of chamise chaparral (Small 1994). This race is essentially sedentary. Male Bell's sage sparrows show high breeding territory tenacity, even when the habitat is altered dramatically (Ehrlich et al. 1988). This species feeds primarily on spiders, insects, and seeds while breeding, and seeds during the winter.

**Grasshopper sparrow (*Ammodramus savannarum*).** Although they have no official status with resource agencies, grasshopper sparrows are considered locally uncommon. In addition, the County gives "special attention" to this species during the development of the North County MSCP as reported in their update on the plan published on their website (County of San Diego 2001). This species has a patchy distribution within grasslands along coastal California and the foothills of the Sierra Nevadas. Grasshopper sparrows are semi-colonial and are locally rare throughout southern California with the numbers of grasshopper sparrows varying annually. Grasshopper sparrows are a localized summer resident in San Diego County and very rare in winter (Unitt 1984). This species was observed adjacent to the Preserve during surveys in 1994 and probably occurs on the Preserve, although its current status is unknown.

**San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).** The San Diego black-tailed jackrabbit is a CDFG species of special concern. This species can be found throughout southern California, with the exception of the high-altitude mountains. The black-tailed jackrabbit is strictly herbivorous, preferring habitat with ample forage such as grasses and forbs. The San Diego black-tailed jackrabbit breeds throughout the year with the greatest number of births occurring from April through May. This species is generally solitary, except when mating and raising young (Zeiner et al. 1990).

## APPENDIX 3e

### Sensitive Wildlife Species Observed on the Carmel Mountain Preserve

**APPENDIX 3e**  
**SENSITIVE WILDLIFE SPECIES OBSERVED ON THE CARMEL MOUNTAIN PRESERVE**

Species	Status	Habitat
<u>Invertebrates</u> (Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE, MSCP, *	Vernal pools.
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Western spadefoot <i>Spea hammondi</i>	CSC	Vernal pools, floodplains, and alkali flats within areas of open vegetation.
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Two-striped garter snake <i>Thamnophis hammondi</i>	CSC, *	Permanent freshwater streams with rocky bottoms. Mesic areas.
San Diego horned lizard <i>Phrynosoma coronatum blainvillii</i>	CSC, MSCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.
Belding's orangethroat whiptail <i>Aspidoscelis hyperythra beldingi</i>	CSC, MSCP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
Northern red diamond rattlesnake <i>Crotalus ruber</i>	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.
<u>Birds</u> (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)		
White-tailed kite (nesting) <i>Elanus leucurus</i>	CFP, *	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.
Northern harrier (nesting) <i>Circus cyaneus</i>	CSC, MSCP	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	CSC, MSCP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.
Western burrowing owl (burrow sites) <i>Athene cunicularia hypugaea</i>	CSC, MSCP	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.
California horned lark <i>Eremophila alpestris actia</i>	CSC	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub.

**APPENDIX 3e**  
**SENSITIVE WILDLIFE SPECIES OBSERVED ON THE CARMEL MOUNTAIN PRESERVE**  
**(continued)**

Species	Status	Habitat
Coastal California gnatcatcher <i>Polioptila californica californica</i>	FT, CSC, MSCP	Coastal sage scrub, maritime succulent scrub. Resident.
Loggerhead shrike <i>Lanius ludovicianus</i>	CSC	Open foraging areas near scattered bushes and low trees.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	CSC, MSCP	Coastal sage scrub, chaparral, grassland. Resident.
Bell's sage sparrow <i>Amphispiza belli belli</i>	CSC	Chaparral, coastal sage scrub. Localized resident.
Grasshopper sparrow (nesting) <i>Ammodramus savannarum</i>	MSCP	Tall grass areas. Localized summer resident, rare in winter.
<u>Mammals</u> (Nomenclature from Jones et al. 1997)		
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	CSC	Open areas of scrub, grasslands, agricultural fields.
Mountain lion <i>Felis concolor</i>	CFP, MSCP	Many habitats.
Southern mule deer <i>Odocoileus hemionus fuliginata</i>	MSCP	Many habitats.

**STATUS CODES**

Listed/Proposed

FE = Listed as endangered by the federal government  
 FT = Listed as threatened by the federal government  
 SE = Listed as endangered by the state of California

Other

CFP = California fully protected species  
 CSC = California Department of Fish and Game species of special concern  
 MSCP = Multiple Species Conservation Program covered species  
 \* = Taxa listed with an asterisk fall into one or more of the following categories:

- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

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## APPENDIX 3f

Plant Species Observed  
at the Del Mar Mesa Preserve

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**

Scientific Name	Common Name	Origin
<i>Acanthomintha coronatum</i> (Thurber) Barkworth	Giant needlegrass	N
<i>Adenostoma fasciculatum</i> Hook. & Arn.	Chamise	N
<i>Adiantum jordani</i> K. Mull.	California maiden-hair fern	N
<i>Adolphia californica</i> Wats.	California adolphia, spineshrub	N
<i>Allium praecox</i> Bdg.	Wild onion	I
<i>Amblyopappus pusillus</i> Hook. & Arn.	Pineapple weed	N
<i>Ambrosia psilostachya</i> DC	Western ragweed	N
<i>Anagallis arvensis</i> L.	Scarlet pimpernel, poor-man's weatherglass	I
<i>Antirrhinum nuttallianum</i> Benth. in DC.	Snapdragon	N
<i>Apiastrum angustifolium</i> Nutt. in Torrey & A. Gray	Wild-celery	N
<i>Arctostaphylos glandulosa</i> Eastw. ssp. <i>crassifolia</i> (Jepson) Wells	Del Mar manzanita, Costa Baja manzanita	N
<i>Artemisia californica</i> Less.	California sagebrush	N
<i>Artemisia palmeri</i> A. Gray	San Diego sagewort, Palmer sagewort	N
<i>Atriplex semibaccata</i> R.Br.	Australian saltbush	I
<i>Avena barbata</i> Link	Slender wild oats	N
<i>Avena fatua</i> L.	Wild oats	N
<i>Baccharis pilularis</i> DC.	Coyote bush	N
<i>Baccharis salicifolia</i> (Ruiz Lopez & Pavón) Pers.	Mule fat, seep-willow	N
<i>Baccharis sarothroides</i> A. Gray	Broom baccharis	N
<i>Bothriochloa barbinodis</i> (Lag.) Herter	Cane bluestem	N
<i>Brassica nigra</i> L.	Black mustard	I
<i>Brodiaea orcuttii</i> (E. Greene) Baker	Orcutt's brodiaea	N
<i>Bromus diandrus</i> Roth.	Ripgut brome	I
<i>Bromus hordaceus</i> L.	Smooth brome	I
<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	Foxtail chess	I
<i>Calandrinia ciliata</i>	Red maids	N
<i>Callitriche marginata</i> Torrey	Water-starwort	N
<i>Calochortus splendens</i> Benth.	Lilac mariposa	N
<i>Calystegia macrostegia</i> ssp. <i>arida</i> (E. Greene) Brum.	Finger-leaf morning-glory	N
<i>Camissonia bistorta</i> (Torrey & A. Gray) Raven	California sun cup	N
<i>Cardamine californica</i> (Torrey & A. Gray) E. Greene	Milk maids, tooth wort	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Cardionema ramosissimum</i> (Weinm.) Nelson & J.F. Macbr.	Tread lightly	N
<i>Carpobrotus edulis</i> (L.) Bolus.	Hottentot fig	I
<i>Castilleja exserta</i> (A.A. Heller) Chuang & Heckard	Purple owl's clover	N
<i>Castilleja foliolosa</i> Hook. & Arn.	Woolly Indian paintbrush	N
<i>Ceanothus tomentosus</i> C. Parry	Coast blue lilac	N
<i>Ceanothus verrucosus</i> Nutt.	Wart-stemmed ceanothus	N
<i>Centaurea melitensis</i> L.	Tocolote, star-thistle	I
<i>Centaurium venustum</i> (A. Gray) Rob.	Canchalagua	N
<i>Chaenactis glabriuscula</i> DC.	Yellow pincushion	N
<i>Chamaesyce polycarpa</i> (Benth.) Millsp.	Spurge	N
<i>Chenopodium ambrosioides</i> L.	Mexican tea	I
<i>Chlorogalum parviflorum</i> Wats.	Amole, soap plant	N
<i>Chorizanthe fimbriata</i> Nutt.	Fringed spineflower	N
<i>Chrysanthemum coronarium</i> L.	Garland, crown daisy	I
<i>Claytonia perfoliata</i> Willd.	Miner's lettuce	N
<i>Cneoridium dumosum</i> (Nutt.) Baillon	Bushrue	N
<i>Collinsia heterophylla</i> Buist.	Chinese houses	N
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> (Parry) E. Greene	Summer holly	N
<i>Conyza canadensis</i> (L.) Cronq.	Horseweed	N
<i>Cordylanthus rigidus</i> (Benth.) Jepson ssp. <i>setigerus</i> Chuang & Heckard	Thread-leaved bird's-beak	N
<i>Cortaderia jubata</i> (Lemoine) Stapf	Pampas grass	I
<i>Cotula coronopifolia</i> L.	Brass-buttons	I
<i>Crassula aquatica</i> (L.) Schoen.	Stone-crop	N
<i>Crassula connata</i> (Ruiz Lopez & Pavon) A. Berger	Pygmy-weed	N
<i>Cryptantha intermedia</i> (A. Gray) E. Greene	Nievita	N
<i>Cucurbita foetidissima</i> Kunth	Calabazilla	N
<i>Cynara cardunculus</i> L.	Cardoon	I
<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	I
<i>Cyperus alternifolius</i> L.	Umbrella-plant	I
<i>Daucus pusillus</i> Michx	Rattlesnake weed	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Deschampsia danthonioides</i>	Annual hairgrass	N
<i>Dichelostemma capitatum</i> Alph. Wood	Blue dicks	N
<i>Dichondra occidentalis</i> House	Western dichondra	N
<i>Distichlis spicata</i> (L.) E. Greene	Saltgrass	N
<i>Downingia cuspidata</i> Jepson	Downingia	N
<i>Dudleya lanceolata</i> (Nutt.) Britt. & Rose	Live-for-ever	N
<i>Dudleya pulverulenta</i> (Nutt.) Britt. & Rose ssp. <i>pulverulenta</i>	Chalk lettuce	N
<i>Eleocharis macrostachya</i> Britton	Pale spikerush	N
<i>Emmenanthe penduliflora</i> Benth.	Whispering bells	N
<i>Encelia californica</i> Nutt.	Common encelia	N
<i>Epilobium canum</i> (E. Greene) Raven ssp. <i>canum</i>	California-fuchsia, <i>zauschneria</i>	N
<i>Eremocarpus setigerus</i> (Hook.) Benth.	Dove weed	N
<i>Eriogonum fasciculatum</i> Benth. var. <i>fasciculatum</i>	California buckwheat	N
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray var. <i>confertiflorum</i>	Golden-yarrow	N
<i>Erodium botrys</i> (Cav.) Bertol.	Pin-clover	I
<i>Erodium cicutarium</i> (L.) L. Her.	White-stemmed filaree	I
<i>Eryngium aristulatum</i> Jepson var. <i>parishii</i> (C. & R.) Jepson	San Diego button-celery	N
<i>Eschscholzia californica</i> Cham.	California poppy	N
<i>Eucalyptus</i> spp.	Eucalyptus	I
<i>Ferocactus viridescens</i> (Torrey & A. Gray) Britt. & Rose	Coast barrel cactus	N
<i>Filago gallica</i> L.	Narrow-leaf herba impia	I
<i>Foeniculum vulgare</i> Mill.	Fennel	I
<i>Galium angustifolium</i> Nutt. <i>angustifolium</i>	Narrow-leaf bedstraw	N
<i>Galium aparine</i> L.	Goose grass	I
<i>Gastridium ventricosum</i> (Gouan) Schinz & Thell.	Nit grass	I
<i>Gilia</i> sp.	Gilia	N
<i>Gnaphalium bicolor</i> Bioletti	Bicolored cudweed	N
<i>Gnaphalium californicum</i> DC.	Green everlasting	N
<i>Harpagonella palmeri</i> A. Gray	Palmer's grappling hook	N
<i>Hazardia squarrosa</i> (Hook. & Arn.) E. Greene	Sawtoothed goldenbush	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Helianthemum scoparium</i> Nutt.	Peak rush-rose	N
<i>Hemizonia fasciculata</i> (DC.) Torrey & A. Gray	Golden tarplant	N
<i>Heteromeles arbutifolia</i> (Lindley) Roemer	Toyon, Christmas berry	N
<i>Heterotheca grandiflora</i> Nutt.	Telegraph weed	N
<i>Hypochaeris glabra</i> L.	Smooth cat's-ear	I
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom	Coast goldenbush	N
<i>Isomeris arborea</i> Nutt.	Bladderpod	N
<i>Jepsonia parryi</i> (Torrey) Small	Mesa saxifrage	N
<i>Juncus bufonius</i> L.	Toad rush	N
<i>Juncus dubius</i> Engelm.	Mariposa rush	N
<i>Juncus mexicanus</i> Willd.	Mexican rush	N
<i>Lactuca serriola</i> L.	Prickly lettuce	I
<i>Lamarckia aurea</i> (L.) Moench.	Goldentop	I
<i>Lasthenia californica</i> Lindley	Goldfields	N
<i>Layia platyglossa</i> (F. & M.) A. Gray	Tidy-tips	N
<i>Lepidium nitidum</i> Torrey & A. Gray var. <i>nitidum</i>	Shining peppergrass	N
<i>Lessingia filaginifolia</i> (Hook. & Arn.) M.A. Lane var. <i>filaginifolia</i>	California-aster	N
<i>Leymus condensatus</i> (C. Presl) A. Love	Giant ryegrass	N
<i>Linanthus dianthiflorus</i> (Benth.) E. Greene	Ground-pink	N
<i>Linaria canadensis</i> (L.) Dum.-Cours	Blue toadflax	N
<i>Lomatium dasycarpum</i> (Torrey & A. Gray) Coult. & Rose ssp. <i>dasycarpum</i>	Lace parsnip	N
<i>Lonicera subspicata</i> Hook. & Arn. var. <i>denudata</i> Rehd.	Wild honeysuckle	N
<i>Lotus</i> sp.	Trefoil	N
<i>Lotus scoparius</i> (Nutt. in Torrey & A. Gray) Ottley var. <i>scoparius</i>	California broom	N
<i>Lotus strigosus</i> (Nutt.) E. Greene	Bishop's lotus	N
<i>Lupinus bicolor</i> Lindl.	Miniature lupine	N
<i>Lupinus succulentus</i> Koch	Arroyo lupine	N
<i>Lycium californicum</i> Nutt.	California box thorn	N
<i>Lythrum californicum</i> Torrey & A. Gray	California loosestrife	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Lythrum hyssopifolium</i> L.	Grass poly	N
<i>Malacothamnus fasciculatus</i> (Torrey & A. Gray) E. Greene	Chaparral mallow	N
<i>Malosma laurina</i> (Nutt.) Abrams	Laurel sumac	N
<i>Marah macrocarpus</i> (E. Greene) E. Greene	Wild cucumber	N
<i>Marrubium vulgare</i> L.	Horehound	I
<i>Melica imperfecta</i> Trin.	California melic	N
<i>Mesembryanthemum crystallinum</i> L.	Crystalline ice plant	I
<i>Mimulus aurantiacus</i> Curtis	Bush monkeyflower	N
<i>Mirabilis californica</i> A. Gray	Wishbone bush	N
<i>Muhlenbergia rigens</i> (Benth.) A. Hitchc.	Deergrass	N
<i>Muilla clevelandii</i> (Wats.) Hoover	San Diego goldenstar	N
<i>Muilla maritima</i> (Torrey) S. Watson	Common muilla	N
<i>Myosurus minimus</i> L.	Little mouse-tail	N
<i>Nassella lepida</i> (A. Hitchc.) Barkworth	Foothill needlegrass	N
<i>Nassella pulchra</i> (A. Hitchc.) Barkworth	Purple needlegrass	N
<i>Navarretia hamata</i> E. Greene	Hooked navarretia	N
<i>Nemophila menziesii</i> Hook. & Arn. var. <i>menziesii</i>	Baby blue-eyes	N
<i>Nicotiana glauca</i> Grah.	Tree tobacco	I
<i>Ophioglossum californicum</i> Prantl.	California adder's-tongue	N
<i>Opuntia littoralis</i> (Engelm.) Cockerell.	Shore cactus	N
<i>Opuntia prolifera</i> Engelm.	Cholla	N
<i>Oxalis albicans</i> Kunth ssp. <i>californica</i> (Abrams) Eiten.	California wood-sorrel	N
<i>Oxalis pes-caprae</i> L.	Bermuda buttercup	I
<i>Pectocarya linearis</i> (Ruis Lopez & Pavon) DC. ssp. <i>ferocula</i> (I.M. Johnston) Thorne	Comb-bur	N
<i>Pellaea mucronata</i> (D. Eaton) D. Eaton	Bird's-foot fern	N
<i>Pentagramma triangularis</i> ssp. <i>viscosa</i> (D. Eaton) G. Yatskievych, M.D. Windham & E. Wollenweber	Silverback fern	N
<i>Phacelia</i> sp.	Phacelia	N
<i>Pholistoma auritum</i> (Lindley) Lilja var. <i>auritum</i>	Fiesta flower	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Plantago erecta</i> Morris	Dot-seed plantain	N
<i>Plantago major</i> L.	Common plantain	I
<i>Platanus racemosa</i> Nutt.	Western sycamore	N
<i>Pogogyne abramsii</i> J. Howell	San Diego mesa mint	N
<i>Polypogon monspeliensis</i> (L.) Desf.	Annual beard grass	I
<i>Porophyllum gracile</i> Benth.	Odora	N
<i>Psilocarphus brevissimus</i> Nutt. var. <i>brevissimus</i>	Dwarf woolly-heads	N
<i>Psilocarphus tenellus</i> Nutt. var. <i>tenellus</i>	Woolly-heads	N
<i>Quercus agrifolia</i> Nee	Coast live oak, Encina	N
<i>Quercus dumosa</i> Nutt.	Nuttall's scrub oak	N
<i>Ranunculus californicus</i> Benth.	California buttercup	N
<i>Raphanus sativus</i> L.	Radish	I
<i>Rhamnus crocea</i> Nutt.	Spiny redberry	N
<i>Rhus integrifolia</i> (Nutt.) Brewer & Watson	Lemonadeberry	N
<i>Rhus ovata</i> Wats.	Sugar bush	N
<i>Ribes speciosum</i> Pursh.	Fuchsia-flowered gooseberry	N
<i>Rumex crispus</i> L.	Curly dock	I
<i>Salix gooddingii</i> C. Ball.	Goodding's black willow	N
<i>Salix lasiolepis</i> Benth.	Arroyo willow	N
<i>Salsola tragus</i> L.	Russian thistle, tumbleweed	I
<i>Salvia apiana</i> Jepson	White sage	N
<i>Salvia columbariae</i> Benth.	Chia	N
<i>Salvia mellifera</i> E. Greene	Black sage	N
<i>Sambucus mexicana</i> C. Presl	Blue elderberry	N
<i>Sanicula</i> sp.	Sanicle	N
<i>Schinus molle</i> L.	Peruvian pepper tree	I
<i>Scirpus californicus</i> (C.A. Mey.) Steudel.	California bulrush	N
<i>Selaginella bigelovii</i> L. Underw.	Bigelow clubmoss	N
<i>Selaginella cinerascens</i> Maxon	Ashy spike-moss	N
<i>Sidalcea malvaeflora</i> (DC.) Benth. ssp. <i>sparsifolia</i> C.L. Hitchc.	Checker mallow	N

**APPENDIX 3f**  
**PLANT SPECIES OBSERVED AT THE DEL MAR MESA PRESERVE**  
**(continued)**

Scientific Name	Common Name	Origin
<i>Silene gallica</i> L.	Windmill pink	I
<i>Sisymbrium irio</i> L.	London rocket	I
<i>Sisymbrium orientale</i> L.	Mustard	I
<i>Sisyrinchium bellum</i> Wats.	Blue-eyed-grass	N
<i>Solanum parishii</i> A.A. Heller	Parish's nightshade	N
<i>Sonchus asper</i> (L.) Hill ssp. <i>asper</i>	Prickly sow thistle	I
<i>Spergula arvensis</i> L. ssp. <i>arvensis</i>	Stickwort, starwort	I
<i>Spergularia villosa</i> (Pers.) Cambess.	Cleveland sand spurrey	I
<i>Stellaria media</i> (L.) Villars	Common chickweed	I
<i>Stephanomeria virgata</i> (Benth.) ssp. <i>virgata</i>	Slender stephanomeria	N
<i>Stylomecon heterophylla</i> (Benth.) G.C. Taylor	Wind poppy	N
<i>Toxicodendron diversilobum</i> (Torrey & A. Gray) E. Greene	Western poison oak	N
<i>Trifolium</i> sp.	Clover	N
<i>Urtica urens</i> L.	Dwarf nettle	I
<i>Viola pedunculata</i> Torrey & A. Gray	Johnny-jump-up	N
<i>Xanthium strumarium</i> L.	Cocklebur	N
<i>Xylococcus bicolor</i> Nutt.	Mission manzanita	N
<i>Yucca schidigera</i> K.E. Ortgies	Mohave yucca	N
<i>Zigadenus fremontii</i> (Torrey) S. Watson	Star-lily	N

OTHER TERMS

- N = Native to locality  
I = Introduced species from outside locality

## APPENDIX 3g

Wildlife Species Observed/Detected  
on the Del Mar Mesa Preserve

**APPENDIX 3g**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE DEL MAR MESA PRESERVE**

Common Name	Scientific Name	Status
<u>Fairy Shrimp</u> (Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	FE, MSCP, *
<u>Invertebrates</u> (Nomenclature from Mattoni 1990 and Opler and Wright 1999)		
Common or checkered white	<i>Pieris protodice</i>	
Sara orangetip	<i>Anthocaris sara</i>	
Alfalfa butterfly	<i>Colias eurytheme</i>	
California ringlet	<i>Coenonympha californica californica</i>	
Painted lady	<i>Vanessa cardui</i>	
Buckeye	<i>Precis coenia</i>	
Behr's metalmark	<i>Apodemia mormo virgulti</i>	
Western elfin	<i>Callophrys augustus iroides</i>	
Bramble or perplexing hairstreak	<i>Callophrys affinis perplexa</i>	
Pigmy blue	<i>Brephidium exilis</i>	
Marine blue	<i>Leptotes marina</i>	
Southern blue	<i>Glaucopsyche lygdamus australis</i>	
Funereal duskywing	<i>Erynnis funeralis</i>	
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Pacific treefrog	<i>Pseudacris regilla</i>	
American bullfrog+	<i>Rana catesbeiana</i>	
Western spadefoot	<i>Spea hammondi</i>	CSC
California toad	<i>Bufo boreas halophilus</i>	
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
San Diego horned lizard	<i>Phrynosoma coronatum blainvillii</i>	CSC, *, MSCP
Western fence lizard	<i>Sceloporus occidentalis</i>	
Side-blotched lizard	<i>Uta stansburiana</i>	
Belding's orangethroat whiptail	<i>Aspidoscelis hyperythra beldingi</i>	CSC, MSCP
Coastal whiptail	<i>Aspidoscelis tigris multiscutatus</i>	
Two-striped garter snake	<i>Thamnophis hammondi</i>	*
Northern red diamond rattlesnake	<i>Crotalus ruber</i>	CSC
<u>Birds</u> (Nomenclature from American Ornithologists' Union 1998 and Unit 1984)		
Turkey vulture	<i>Cathartes aura</i>	
White-tailed kite	<i>Elanus leucurus</i>	CFP, *
Northern harrier	<i>Circus cyaneus hudsonius</i>	CSC, MSCP
Sharp-shinned hawk	<i>Accipiter striatus velox</i>	CSC
Cooper's hawk	<i>Accipiter cooperi</i>	CSC, MSCP
Red-shouldered hawk	<i>Buteo lineatus elegans</i>	
Red-tailed hawk	<i>Buteo jamaicensis</i>	
American kestrel	<i>Falco sparverius</i>	
California quail	<i>Callipepla californica californica</i>	
Band-tailed pigeon	<i>Columba fasciata monilis</i>	
Mourning dove	<i>Zenaida macroura marginella</i>	
Common ground dove	<i>Columbina passerina pallescens</i>	
Greater roadrunner	<i>Geococcyx californianus</i>	
Common barn owl	<i>Tyto alba pratincola</i>	
Western screech owl	<i>Megascops kennicottii</i>	

**APPENDIX 3g**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE DEL MAR MESA PRESERVE**  
**(continued)**

Common Name	Scientific Name	Status
Lesser nighthawk	<i>Chordeiles acutipennis texensis</i>	
Poor-will	<i>Phalaenoptilus nuttallii</i>	
Anna's hummingbird	<i>Calypte anna</i>	
Allen's hummingbird	<i>Selasphorus sasin</i>	
Belted kingfisher	<i>Ceryle alcyon</i>	
Acorn woodpecker	<i>Melanerpes formicivorus bairdi</i>	
Nuttall's woodpecker	<i>Picoides nuttallii</i>	
Northern flicker	<i>Colaptes auratus</i>	
Black phoebe	<i>Sayornis nigricans semiatra</i>	
Say's phoebe	<i>Sayornis saya</i>	
Ash-throated flycatcher	<i>Myiarchus cinerascens cinerascens</i>	
Horned lark	<i>Eremophila alpestris</i>	
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	
Cliff swallow	<i>Hirundo pyrrhonota tachina</i>	
Western scrub-jay	<i>Aphelocoma californica</i>	
American crow	<i>Corvus brachyrhynchos hesperis</i>	
Common raven	<i>Corvus corax clarionensis</i>	
Hutton's vireo	<i>Vireo huttoni huttoni</i>	
Plain titmouse	<i>Parus inornatus transpositus</i>	
Bushtit	<i>Psaltiriparus minimus minimus</i>	
Bewick's wren	<i>Thyromanes bewickii</i>	
House wren	<i>Troglodytes aedon parkmanii</i>	
Northern mockingbird	<i>Mimus polyglottos polyglottos</i>	
California thrasher	<i>Toxostoma redivivum redivivum</i>	
European starling+	<i>Sturnus vulgaris</i>	
Western bluebird	<i>Sialia mexicana occidentalis</i>	MSCP
Hermit thrush	<i>Catharus guttatus</i>	
Wrentit	<i>Chamaea fasciata henshawi</i>	
Blue-gray gnatcatcher	<i>Poliophtila caerulea</i>	
Coastal California gnatcatcher	<i>Poliophtila californica californica</i>	FT,CSC,MSCP
Phainopepla	<i>Phainopepla nitens lepida</i>	
American goldfinch	<i>Carduelis tristis salicamans</i>	
Lesser goldfinch	<i>Carduelis psaltria hesperophilus</i>	
House finch	<i>Carpodacus mexicanus frontalis</i>	
Orange-crowned warbler	<i>Vermivora celata</i>	
Yellow-rumped warbler	<i>Dendroica coronata</i>	
Common yellowthroat	<i>Geothlypis trichas</i>	
Lazuli bunting	<i>Passerina amoena</i>	
Spotted towhee	<i>Pipilo maculatus</i>	
California towhee	<i>Pipilo crissalis</i>	
Bell's sage sparrow	<i>Amphispiza belli belli</i>	CSC
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	CSC,MSCP
Song sparrow	<i>Melospiza melodia</i>	
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	
Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>	
Western meadowlark	<i>Sturnella neglecta</i>	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	

**APPENDIX 3g**  
**WILDLIFE SPECIES OBSERVED/DETECTED ON THE DEL MAR MESA PRESERVE**  
**(continued)**

Common Name	Scientific Name	Status
<u>Mammals</u> (Nomenclature from Jones et al. 1997)		
California ground squirrel	<i>Spermophilus beecheyi</i>	
Southern pocket gopher	<i>Thomomys umbrinus</i>	
Pacific (= agile) kangaroo rat	<i>Dipodomys agilis</i>	
Woodrat	<i>Neotoma</i> sp.	CSC
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	CSC
Cottontail rabbit	<i>Sylvilagus audubonii</i>	
Striped skunk	<i>Mephitis mephitis</i>	
Coyote	<i>Canis latrans</i>	
Gray fox	<i>Urocyon cinereoargenteus</i>	
Mountain lion	<i>Felis concolor</i>	CFP, MSCP
Bobcat	<i>Felis rufus</i>	
Southern mule deer	<i>Odocoileus hemionus fuliginata</i>	MSCP

+ = Introduced species

Status

CFP = California fully protected species

CSC = California Department of Fish and Game species of special concern

FE = Listed as endangered by the federal government

FT = Listed as threatened by the federal government

MSCP = Multiple Species Conservation Program covered species

\* = Taxa listed with an asterisk fall into one or more of the following categories:

- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

## APPENDIX 3h

### Sensitive Plant Species Observed on the Del Mar Mesa Preserve

**APPENDIX 3h**  
**SENSITIVE PLANT SPECIES OBSERVED ON THE DEL MAR MESA PRESERVE**

Species	State/Federal Status	CNPS List	CNPS Code	Typical Habitat/Comments
<i>Adolphia californica</i> California adolphia	—/—	2	1-2-1	Chaparral
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	—/FE	1B	3-3-2	Coastal chaparral
<i>Artemisia palmeri</i> San Diego sagewort	—/—	2	2-2-1	Coastal sage scrub, chaparral, riparian
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	—/—	1B	1-3-2	Closed-cone coniferous forest, meadows, cismontane wood-land, valley and foothill grass- land, vernal pools
<i>Ceanothus verrucosus</i> Wart-stemmed ceanothus	—/—	2	1-2-1	Chaparral
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer holly	—/—	1B	2-2-2	Chaparral
<i>Dichondra occidentalis</i> Western dichondra	—/—	4	1-2-1	Chaparral, cismontane wood-land, coastal sage scrub, valley and foothill grassland
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button celery	CE/FE	1B	2-3-2	Vernal pools, marshes
<i>Ferocactus viridescens</i> Coast barrel cactus	—/—	2	1-3-1	Chaparral, coastal sage scrub, valley and foothill grassland
<i>Harpagonella palmeri</i> var. <i>palmeri</i> Palmer's grappling hook	—/—	2	1-2-1	Chaparral, coastal sage scrub, valley and foothill grassland
<i>Lessingia filaginifolia</i> var. <i>filaginifolia</i> (= <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> ) Del Mar Mesa sand aster	—/—	1B	3-2-3	Chaparral, coastal sage scrub
<i>Monardella linoides</i> ssp. <i>viminea</i> Willow monardella	CE/FE	1B	2-3-2	Riparian scrub
<i>Muilla clevelandii</i> San Diego goldenstar	—/—	1B	2-2-2	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools
<i>Myosurus minimus</i> ssp. <i>apus</i> Little mousetail	—/—	3	2-3-2	Vernal pools
<i>Ophioglossum californicum</i> (= <i>Ophioglossum lusitanicum</i> ssp. <i>californicum</i> ) California adder's-tongue fern	—/—	4	1-2-2	Clay mesa soils

**APPENDIX 3h**  
**SENSITIVE PLANT SPECIES OBSERVED ON THE DEL MAR MESA PRESERVE**  
**(continued)**

Species	State/Federal Status	CNPS List	CNPS Code	Typical Habitat/Comments
<i>Pogogyne abramsii</i> San Diego mesa mint	CE/FE	1B	2-3-3	Vernal pools
<i>Quercus dumosa</i> Nuttall's scrub oak	—/—	1B	2-3-2	Coastal chaparral
<i>Selaginella cinerascens</i> Ashy spike-moss	—/—	4	1-2-1	Chaparral, coastal sage scrub

NOTE: See Appendix 3c for Sensitivity Codes

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## APPENDIX 3i

Descriptions of Sensitive Species  
Occurring on the Del Mar Mesa Preserve and  
Not Covered by the MSCP

### APPENDIX 3i

#### Descriptions of Sensitive Species Occurring on the Del Mar Mesa Preserve and Not Covered by the MSCP

**California adolphia (*Adolphia californica*).** California adolphia is a CNPS List 2 species in the buckthorn family (Rhamnaceae). This species generally occurs in Diegan



**Photograph A3i-1.** California Adolphia (pale green shrub in the middle of the picture) in the Northeast Portion of the Del Mar Mesa Preserve

coastal sage scrub or near the edge of chaparral, in dry locales with shrubs four to five feet tall. This shrub flowers from December to April and loses its leaves in late summer and fall, making it difficult to find. Its spiny stems are identifiable at close range year-round, however. It is associated with San Miguel and Friant soils (Reiser 2001). Its geographic range extends from San Diego County south into Baja California. In San Diego County, it is found from the Carlsbad area south into the Proctor Valley and Otay region (Beauchamp 1986).

On the Del Mar Mesa Preserve, California adolphia is a component of the coastal sage scrub and has been found in the northeast portion of the Preserve and likely occurs at other locations as well.

**San Diego sagewort (*Artemisia palmeri*).** San Diego sagewort is a member of the plant family Asteraceae. This perennial is on List 2 of the CNPS *Inventory* (CNPS 2001). It generally occurs in coastal sage scrub and along drainages in San Diego County and northern Baja California, Mexico. In San Diego County, its distribution ranges from La Jolla south to Otay and east to Alpine (Beauchamp 1986). This species can occur in low numbers in dense riparian vegetation and its presence may be very difficult to detect.

**Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*).** Summer holly is a CNPS List 1B species. This evergreen shrub in the heath family (Ericaceae) reaches heights of 15 feet and produces a small white flower from April to June (Munz 1974). Summer holly is found in the chaparral in Orange, Riverside and San Diego Counties, as well as Baja California, Mexico. In San Diego County it generally occurs at low elevations in chaparral communities near the coast. Summer holly is threatened by development and gravel mining (CNPS 2001).

**Western dichondra (*Dichondra occidentalis*).** Western dichondra is a CNPS List 4 species, indicating that it has limited distribution or is infrequent throughout its range. Its



Photograph A3i-2. Western Dichondra

range extends from Ventura County south into Baja California, Mexico, including the Channel Islands. In San Diego County, it is known from Agua Hedionda south to Point Loma and inland to Poway, Otay Mountain, and the Tijuana Hills (Beauchamp 1986). This small perennial herb in the morning-glory family (Convolvulaceae) flowers from March to May. It often grows almost completely hidden under shrubs or trees in coastal sage scrub and chaparral, or among rocky outcrops

in grasslands. It grows primarily in dry sandy soils including Heuerhuero soils and Hambright gravelly clay loam (Reiser 2001). The numbers of western dichondra are slowly declining in southern California because habitat is being lost to development and weeds are invading native vegetation communities.

**Palmer's grappling hook (*Harpagonella palmeri*).** Palmer's grappling hook is a member of the Boraginaceae family. This annual is a CNPS *Inventory* (CNPS 2001) List 2 species that occurs in Los Angeles, Orange, Riverside, and San Diego Counties as well as in Arizona; in Baja California, Mexico; and on San Clemente Island (Munz 1974). In San Diego County, it occurs on clay soils from Guajome Mesa, Rancho Santa Fe, Poway, Kearny Mesa, Mission Gorge, Rice Canyon, and Otay (Beauchamp 1986).

**Little mousetail (*Myosurus minimus* ssp. *apus*).** This annual is on List 3 of the CNPS *Inventory*, indicating that additional study is needed to determine the level of threat to the species (CNPS 2001). It is an annual herb in the buttercup family (Ranunculaceae) that flowers from March to June. Little mousetail is endemic to vernal pools, where it typically grows in the deeper portions of vernal pools. It ranges from southern Oregon to northern Baja California, Mexico, and can be found in the Central Valley and Riverside, San Bernardino, and San Diego Counties in California. In San Diego County, it is found in a limited number of vernal pools on Del Mar Mesa, Camp Pendleton, Otay Mesa, near Otay Lake, near Peñasquitos Canyon, and in the Ramona area (Reiser 2001).

**California adder's-tongue fern (*Ophioglossum californicum*).** California adder's-tongue fern is a CNPS List 4 whose range extends from the Sierra Nevada foothills to southern California and southward into Baja California, Mexico. In San Diego County, the fern has been reported from Kearny Mesa, Olivenhain, Proctor Valley, and Escondido (Beauchamp 1986). This perennial rhizomatous herb typically occurs on grassy slopes and near vernal pools and seeps, in coastal and foothill locations below 900 feet elevation. The California adder's-tongue fern is easily observed during the

springtime, but becomes inconspicuous later in the season. This species is associated with vernal pools and other seasonal wetlands and wet meadows on the Preserve. It has been documented as occurring on Del Mar Mesa Preserve, but its location has not been mapped.

**Nuttall's scrub oak (*Quercus dumosa*).** Nuttall's scrub oak is a member of the Fagaceae family. This evergreen shrub is a CNPS *Inventory* (CNPS 2001) List 1B species that occurs in Santa Barbara, Orange, and San Diego Counties as well as in Baja California, Mexico. Nuttall's scrub oak is found within chaparral and coastal sage scrub vegetation on sandy or clay loam soils. This species occurs abundantly within southern maritime chaparral on the Preserve.

**Ashy spike-moss (*Selaginella cinerascens*).** Ashy spike-moss is no longer considered a List 4 species by CNPS (CNPS 2001); however, due to the importance of this species to habitat and ecosystem stability, we still consider this species a sensitive resource. Ashy spike-moss is a prostrate non-flowering perennial herb in the spike-moss family (Selaginellaceae) that reproduces by spores in March. It occurs in undisturbed coastal sage scrub and chaparral from Orange County south into Baja California, Mexico. In San Diego County ashy spike-moss is most often found near the coast, south of Highway 78, particularly around the periphery of the city of San Diego. Ashy spike-moss has been documented as occurring on Del Mar Mesa Preserve (see Appendix 3e) and is present in many of the vegetation communities, particularly on flat mesas or slightly sloped mesa edges, wherever the cryptogamic/microbiotic crust has not been disturbed and also in some locations that are recovering from disturbance.

**Two-striped garter snake (*Thamnophis hammondi*).** The two-striped garter snake is a sensitive species that may grow as long as 36 inches though 18 to 24 inches is more usual. Its dorsal scales are keeled, which breaks up the reflection of light and results in a dull luster. The overall color is olive drab with a single yellowish stripe running down each side of the body. Patterned into the dorsal coloration are four rows of small, dark spots. The belly is dull yellow, or sometimes salmon colored. The two-striped garter snake ranges in coastal California from the vicinity of Salinas south to El Rosario in Baja California, Mexico. They are normally found in or near permanent fresh water, inhabiting streams, ponds, and lakes throughout their range. They are often found even in temporary bodies of water such as vernal pools. It is the most common snake in southern California, and it is not unusual to encounter several individuals at a time. Activity is most common around dusk and in the early evening. Adults feed on frogs, tadpoles, toads, insect larvae, fish, fish eggs, and earthworms. The two-striped garter snake is ovoviviparous. Breeding commences in April and May and continues throughout the summer months. Gestation is approximately nine weeks. As many as 25 young may be born, though 12 to 13 is more common.

**Northern red diamond rattlesnake (*Crotalus ruber*).** The northern red diamond rattlesnake is a CDFG species of special concern. This species occurs below 1,200



**Photograph 3i-3.**

Red Diamond Rattlesnake at Carmel Mountain

meters (4,000 feet) on both sides of the Peninsular Ranges of southwestern California in coastal sage scrub, desert scrub, open chaparral, woodland, and grassland habitats, as well as agricultural fields (Stebbins 1985). This snake is commonly found in areas with rock outcrops. Population declines in the red diamond rattlesnake are generally attributable to impacts related to the increased development near habitat in which this snake is found.

**Sharp-shinned hawk (*Accipiter striatus*)** The sharp-shinned hawk is a California species of special concern that inhabits woodlands, parks, and residential areas throughout most of North America, feeding mostly on birds and occasionally on small mammals, reptiles, and other small prey (Ehrlich et al. 1988). When breeding in mountainous coniferous/deciduous forests in April through August, the sharp-shinned hawk usually nests within 90 meters of water (Zeiner et al. 1990). It is a common migrant and rare summer resident in San Diego County (Unitt 1984).

**White-tailed kite (*Elanus leucurus*).** The white-tailed kite is a California fully protected species that occurs in coastal lowland areas from Oregon to northern Baja California, Mexico (National Geographic Society 1983). This resident bird nests in riparian woodlands, live oaks, or sycamore groves which border grassland or open fields (Unitt 1984 and 2004). The white-tailed kite forages over open areas and grasslands feeding primarily on small rodents, in particular the California vole or meadow mouse (Unitt 2004), and insects (National Geographic Society 1983). This species is known to roost in large communal groups (Unitt 1984 and 2004). White-tailed kite populations in southern California have declined due to the loss of grassland foraging habitat to urbanization. This species was observed on the Preserve.

**Blue-gray gnatcatcher (*Poliophtila caerulea*).** The blue-gray gnatcatcher is on the sensitive species list for the City of San Diego. The blue-gray gnatcatcher is distributed throughout Mexico and the U.S., excluding northern plains states and the northwest. Locally, this species is a fairly common migrant and winter visitor and a rare and localized summer resident. The blue-gray gnatcatcher winters in dense riparian undergrowth, weedy/brushy agricultural areas, thickets in desert washes, and occasionally chaparral. It breeds in foothill chaparral, desert-edge scrub, and mesquite thickets. Brood-parasitism by brown-headed cowbirds is one contributing reason to the decline of this species.

**Bell's sage sparrow (*Amphispiza belli belli*).** Bell's sage sparrow is a CDFG species of special concern. Bell's sage sparrow is an uncommon to locally fairly common resident along the extreme west coast of California. Its breeding range is along the coastal slopes from Trinity County south into northwestern Baja California, Mexico. Locally, it can be found in the interior chaparral and coastal sage scrub habitats, especially dense stands of chamise chaparral (Small 1994). This race is essentially sedentary. Male Bell's sage sparrows show high breeding territory tenacity, even when the habitat is altered dramatically (Ehrlich et al. 1988). This species feeds primarily on spiders, insects, and seeds while breeding, and seeds during the winter.

**San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).** The San Diego black-tailed jackrabbit is a CDFG species of special concern. This species can be found throughout southern California, with the exception of the high-altitude mountains. The black-tailed jackrabbit is strictly herbivorous, preferring habitat with ample forage such as grasses and forbs. The San Diego black-tailed jackrabbit breeds throughout the year with the greatest number of births occurring from April through May. This species is generally solitary, except when mating and raising young (Zeiner et al. 1990).

## APPENDIX 3j

### Sensitive Wildlife Species Occurring on the Del Mar Mesa Preserves

**APPENDIX 3j**  
**SENSITIVE WILDLIFE SPECIES OCCURRING ON THE DEL MAR MESA PRESERVE**

Species	Status	Habitat
<u>Invertebrates</u> (Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE, MSCP, *	Vernal pools.
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
Western spadefoot <i>Spea hammondi</i>	CSC	Vernal pools, floodplains, and alkali flats within areas of open vegetation.
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)		
San Diego horned lizard <i>Phrynosoma coronatum blainvillii</i>	CSC, MSCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.
Belding's orangethroat whiptail <i>Aspidoscelis hyperythra beldingi</i>	CSC, MSCP,	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
Two-striped garter snake <i>Thamnophis hammondi</i>	CSC, *	Permanent freshwater streams with rocky bottoms. Mesic areas.
Northern red diamond rattlesnake <i>Crotalus ruber</i>	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.
<u>Birds</u> (Nomenclature from American Ornithologists' Union)		
Turkey vulture <i>Cathartes auras</i>		Open fields, grasslands, rocky cliffs. Spring and fall migrant, winter visitor, rare summer resident..
White-tailed kite (nesting) <i>Elanus leucurus</i>	CFP, *	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.
Northern harrier (nesting) <i>Circus cyaneus</i>	CSC, MSCP	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.
Sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	CSC	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	CSC, MSCP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.
California horned lark <i>Eremophila alpestris actia</i>	CSC	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub.
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT, CSC, MSCP	Coastal sage scrub, maritime succulent scrub. Resident.

**APPENDIX 3j**  
**SENSITIVE WILDLIFE SPECIES OCCURRING ON THE DEL MAR MESA PRESERVE**  
**(continued)**

Species	Status	Habitat
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	CSC, MSCP	Coastal sage scrub, chaparral, grassland. Resident.
Bell's sage sparrow <i>Amphispiza belli belli</i>	CSC	Chaparral, coastal sage scrub. Localized resident.
Western bluebird <i>Sialia mexicana</i>	MSCP	Open woodlands, farmlands, orchards.
<u>Mammals</u> (Nomenclature from Jones et al. 1997)		
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	CSC	Open areas of scrub, grasslands, agricultural fields.
Mountain lion <i>Felis concolor</i>	CFP, MSCP	Many habitats.
Southern mule deer <i>Odocoileus hemionus fuliginata</i>	MSCP	Many habitats.

**STATUS CODES**

Listed/Proposed

FE = Listed as endangered by the federal government  
FT = Listed as threatened by the federal government

Other

CFP = California fully protected species  
CSC = California Department of Fish and Game species of special concern  
MSCP = Multiple Species Conservation Program covered species  
\* = Taxa listed with an asterisk fall into one or more of the following categories:  
• Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines  
• Taxa that are biologically rare, very restricted in distribution, or declining throughout their range  
• Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California  
• Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)